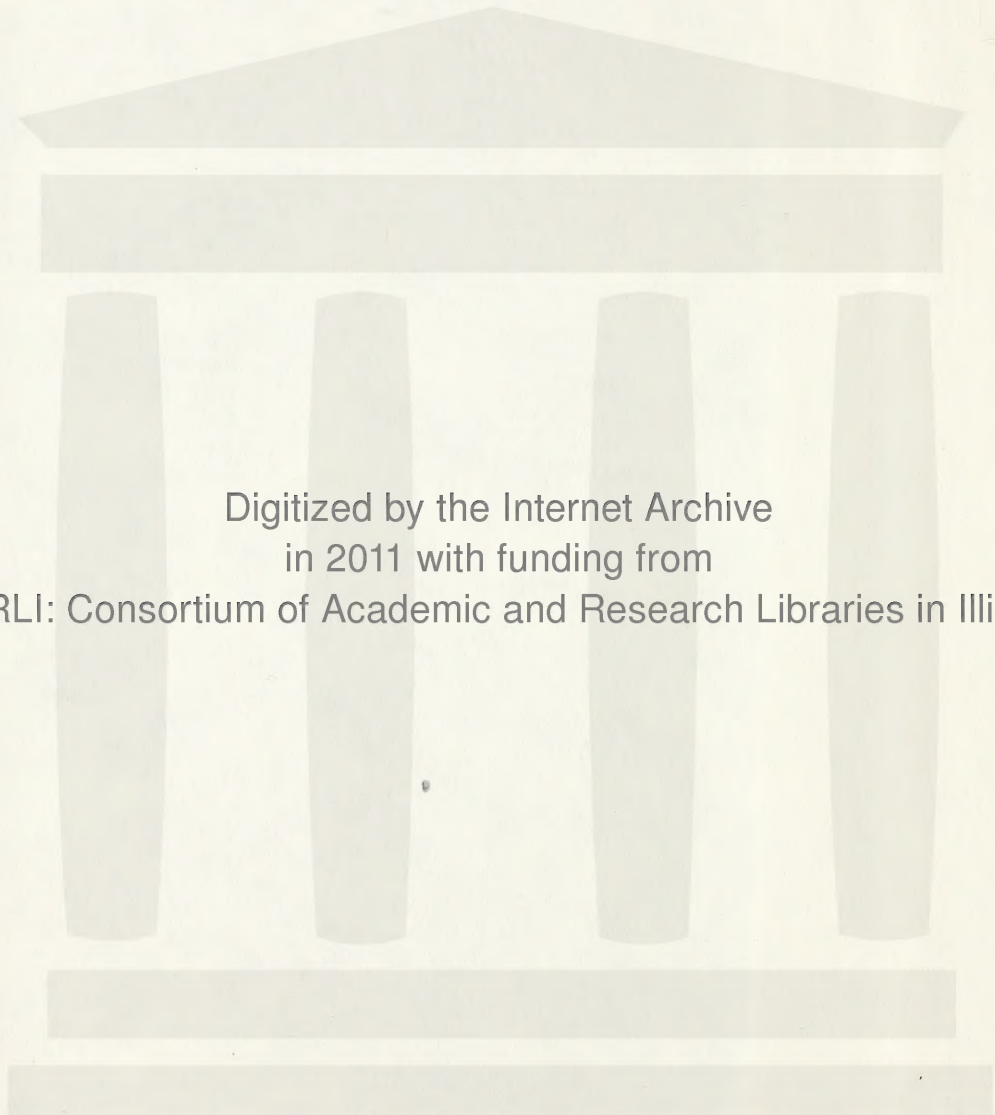

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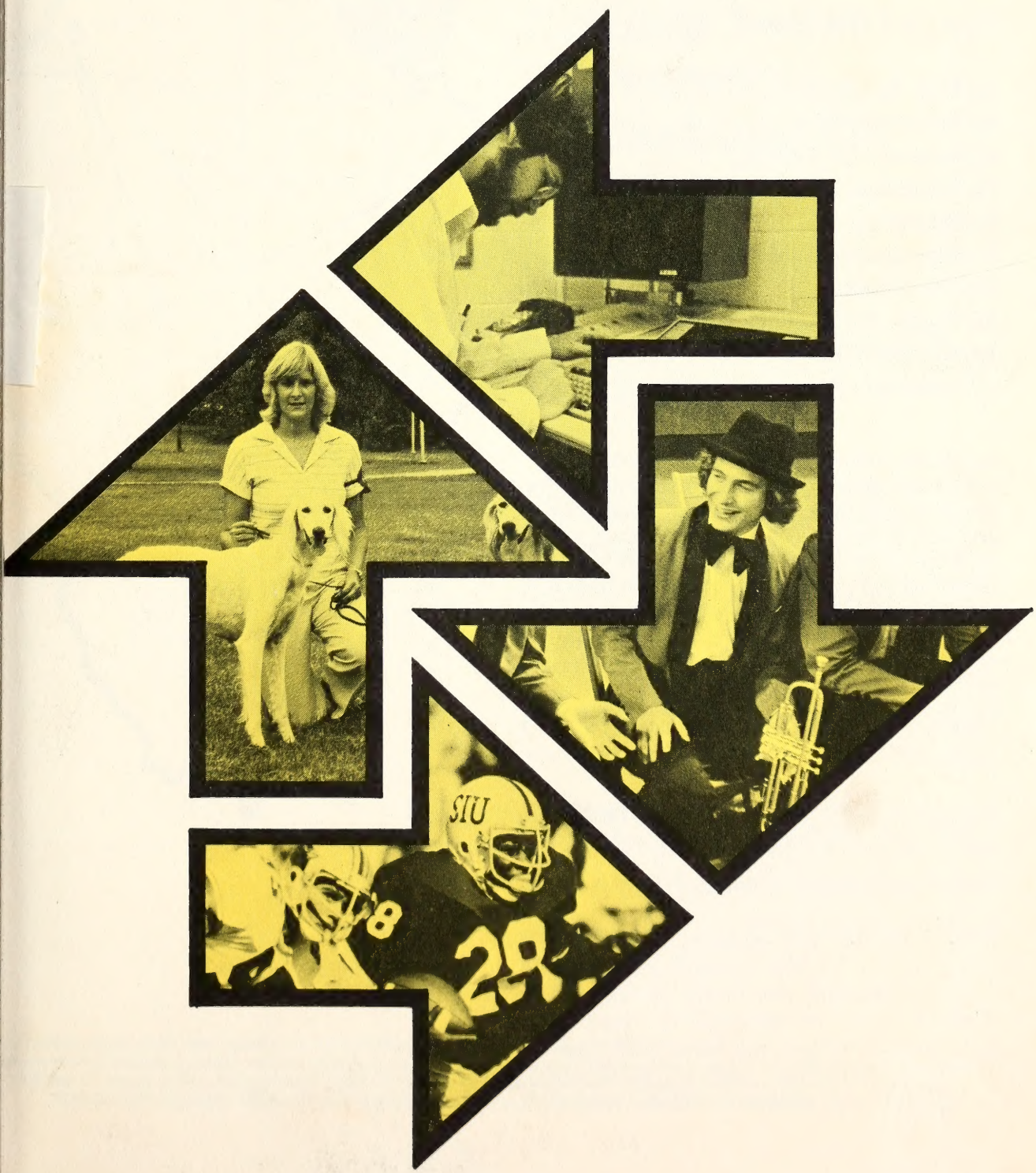


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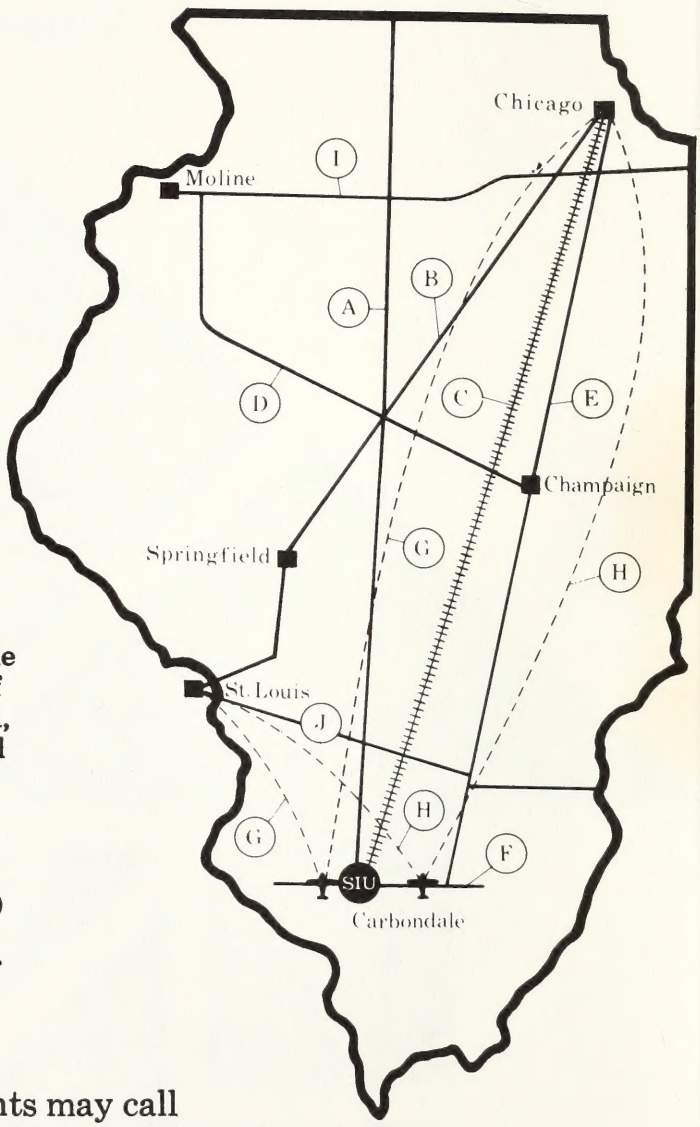
1980–1981 General Information Catalog



Where Is SIUC?

How Do I Get There?

A/U.S. Route 51
B/Interstate 55
C/Amtrak–I.C.G.R.R.
D/Interstate 74
E/Interstate 57
F/Illinois Route 13
G/Air Illinois
H/Ozark Airlines
I/Interstate 80
J/Interstate 64



Southern Illinois University at Carbondale is located approximately 60 miles north of the southern tip of Illinois. Major air, rail, and bus lines serve the SIUC campus, and students from the northern reaches of Illinois find Amtrak and Interstate 57 the fastest and most direct routes to Carbondale. SIUC is located approximately 110 miles (2 hours driving) southeast of St. Louis, and 330 miles (6½ hours driving) south of Chicago. Both Air Illinois and Ozark Airlines serve the immediate SIUC area.

For more information Illinois residents may call toll free to the Office of Admissions and Records Monday through Friday, 10:00 A.M.–4:30 P.M.

1–800–642–3531

Southern Illinois University is an Equal Opportunity/Affirmative Action institution in accordance with Civil Rights legislation and does not discriminate on the basis of race, religion, national origin, sex, age, handicap or other factors prohibited by law in any of its educational programs, activities, admissions, or employment practices. Concerns regarding this policy should be referred to the Affirmative Action Office, Southern Illinois University at Carbondale, Anthony Hall, Room 104, telephone 618-536-6618.



Southern Illinois University at Carbondale Bulletin

1980–1981 General Information Catalog

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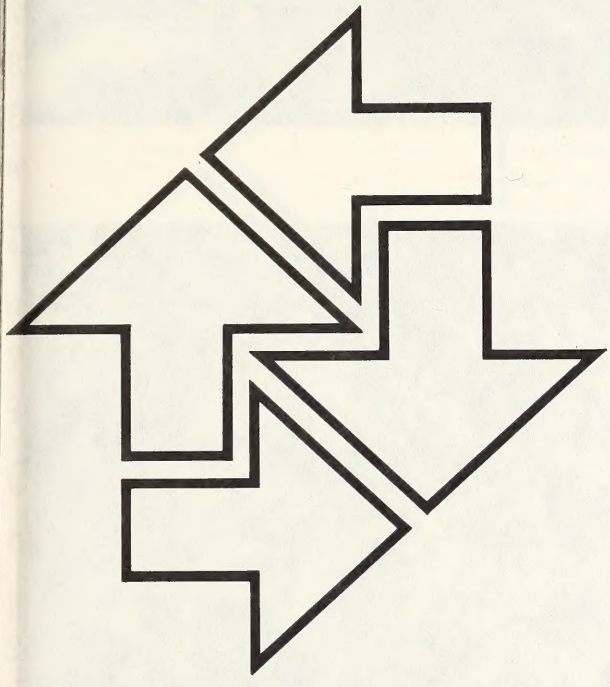
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What to Look for in a College

First determine if the college or university has the major you want. Obtain and thoroughly review the catalog of each institution you are thinking about. When you have narrowed your selection to two or three schools, schedule visits to them. Attempt to talk with personnel in admissions, housing, student work and financial assistance, and also with a representative of each department that interests you.

Assistance in making such arrangements normally can be obtained by contacting the admissions office of the institutions of your choice. In corresponding with and in visiting a campus, you may also discover just how much interest that school and its personnel have in you.

Compare Academic Programs

If you want to receive a degree in radio-television, journalism, forestry, or any other field, don't settle for anything less. Examine college catalogs carefully. Make sure the institution you choose offers a degree in your major, not just a specialization or a few courses under some general degree. Examine the depth and scope of training available at the graduate level to determine what opportunities would be available if you decided to work toward advanced degrees. Graduate work in many fields is fast becoming a necessity.

Consider what you would have to do if you changed your major. Are the academic offerings large enough in your areas of interest to accommodate a change in major?

Visit the Campus



Anyone who is seriously interested in making the best possible selection in schools will shop around. Visiting a college campus gives first hand knowledge of the campus environment, what its faculty and students are like, and if its academic programs suit your individual needs. You should shop as wisely for a college as you would for a home.

Each college campus has its own personality and atmosphere. It's something that you must experience in person to appreciate, for no two campuses are ever alike. Some institutions look very impressive on paper, but in person you may find their images and facilities to be publicity techniques and little else.

Compare Costs and Financial Aid Packages

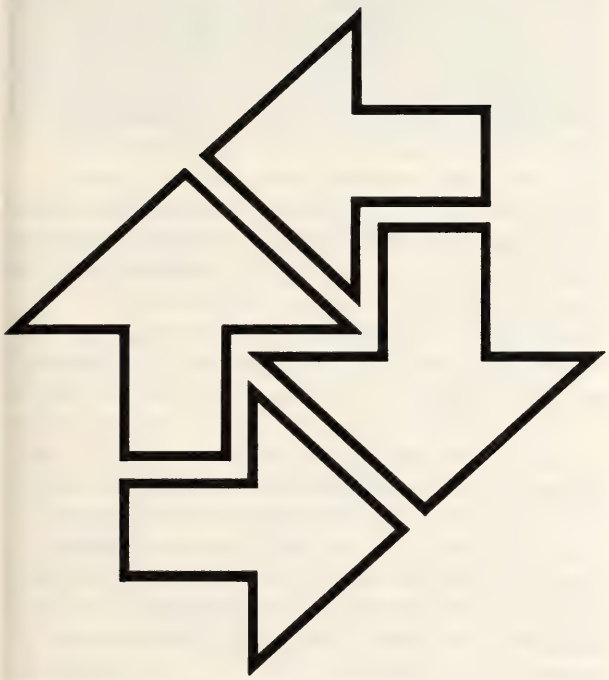


Make sure you are investing your time and money wisely.

Never equate high or low costs with the quality of education. Examine academic programs, library facilities, physical plant, faculty, and student services to determine exactly what you have available in return for your investment.

Investigate deeply into financial aid packages. Ask yourself and college officials how long you can count on their assistance. Take advantage of state and federal programs based on financial need; these often pay more than institutional awards. Check out academic scholarships at various institutions to determine if you might be eligible. Above all, apply early for financial aid.





A Comprehensive University

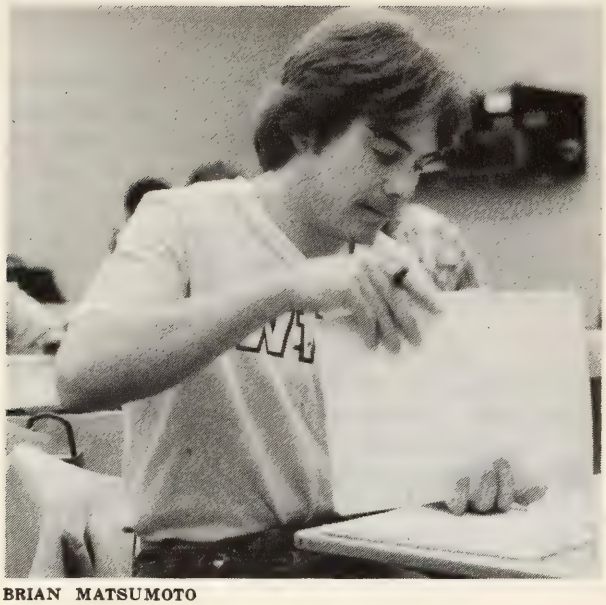
Full-time resident enrollment at Southern Illinois University at Carbondale is among the largest in the nation, yet teaching efforts are focused on the special interests of individual students. The various schools, colleges, divisions, and departments are designed to offer general and professional training from two-year associate degree programs to doctoral degrees.

The University and all of its programs are fully accredited by the North Central Association of Colleges and Secondary Schools. A complete list of accrediting agencies for individual programs and majors can be obtained by requesting the *Undergraduate Catalog*.

The comprehensive offerings of Southern Illinois University at Carbondale can be matched only by a few institutions in the nation. The outstanding faculty display diverse backgrounds and training from the best schools throughout the world. Seventy-eight percent of the full-time faculty hold the most advanced degrees in their fields. The ratio of undergraduate students to faculty who teach at the undergraduate level is fifteen to one.

The Undecided Option

If you have decided upon a major, you may declare it and be admitted directly to that program. However, surveys made in the past several years reveal that slightly more than half of all entering freshmen have not chosen a major at the time they apply for admission. Many students in addition change their majors after their first term of attendance.



BRIAN MATSUMOTO

Choosing a major and ultimately a career is one of the most important decisions anyone ever makes. Pre-major advisement, in General Academic Programs, provides the opportunity for a student to come in contact with new ideas and curricula of more than a hundred undergraduate specializations.

Under the guidance of professional academic advisors, the student finds that the selection of a major field logically follows a period of experimentation with the variety of courses offered in General Studies and the major disciplines of the University.

The General Studies Program

It has been said that every educated person should know both a little of everything and something well. Every student should learn enough about the major areas of learning outside his or her field of concentration to keep the overall program of study from over-specialization and narrowness. This "broadening-out" process is called general education and is an integral part of degree requirements at most colleges and universities in this country.

At SIUC the general education concept is implemented through a program called General Studies. The pattern is a simple division into five areas of study. A wide range of choice is available and particular course selections will depend upon your individual interest and background. The University believes in a strong, well-rounded education, but does not believe that every student must take the same courses to meet that objective. Your academic advisor will assist you in determining which courses will be right for you. But remember that the ultimate responsibility for specific course selection is yours. Flexibility is the keystone of our present program—flexibility fitted to your individual talents and interests.

The requirements within the five areas of General Studies are:

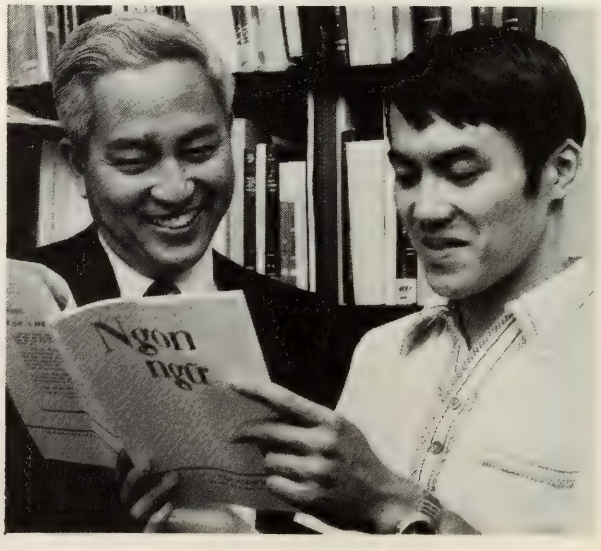
Area A: Our Physical Environment and Biological Inheritance—9 semester hours chosen from courses representing three different departments such as botany, chemistry, engineering, geography, geology, music, physics, physiology, psychology, and zoology.

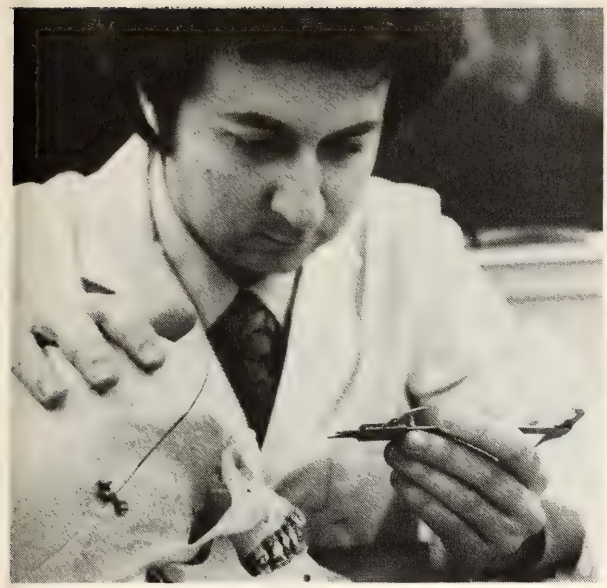
Area B: Our Social Inheritance and Social Responsibilities—9 semester hours chosen from courses representing three different departments such as agriculture, anthropology, black American studies, child and family, economics, education, family economics and management, finance, geography, history, journalism, linguistics, political science, psychology, and sociology.

Area C: Our Insights and Appreciations—9 semester hours chosen from courses representing three different departments such as art, black American studies, cinema and photography, design, literature, foreign language, music, philosophy, recreation, religious studies, speech, and theater.

Three additional hours are required and may be chosen from Area A, B, or C.

Area D: Organization and Communication of Ideas—11 semester hours including 5 semester hours of English composition; 4





semester hours of mathematics; and 2 semester hours of speech or other oral communication.

Area E: Human Health and Well-Being—4 semester hours chosen from numerous physical education activities, including aquatics, exercise, dance, individual and team sports; and academic courses in the fields of health and nutrition.

There is no mandatory freshman program; freshmen are free to take, within the broad framework of the General Studies Program, any courses that interest them and which they feel they can handle. For example: Would you like to learn more about hi-fi sound systems? . . . where to look for oil? . . . space science? . . . the relationship of man to nature? . . . how to identify the wild flowers of southern Illinois? . . . how to predict weather? . . . Do the cultures of America or the world interest you? . . . Are you interested in psychology? . . . jazz? . . . religion? . . . philosophy? . . . sociology? . . . or economics? Have you always wanted to learn to play the piano? . . . to scuba dive? . . . to tap dance? . . . to play golf?

You can do all of these things, and more, while you are fulfilling your General Studies requirements. Compare these general education courses with those of other schools and you will readily see why at SIUC general education is enjoyable and rewarding.

Pre-Professional Programs

Many careers in the professions of law, theology, and health require a combination of general education and specific course work before students may apply to professional schools. The required preparation varies from one to four years. In conjunction with professional schools, SIUC has drawn up recommended pre-professional programs of study which do not lead to a degree in themselves, but which can be combined with a degree program at SIUC.

The pre-law and pre-theology programs of study are coordinated by the College of Liberal Arts.

The most popular non-degree, health oriented curricula at SIUC are those preparing students to apply for training in dentistry, medicine (including osteopathic medicine), nursing, optometry, pharmacy, podiatry, and veterinary science. Preparatory course work is available for others, as well.

SIUC has a Health Professions Information Office to assist students in obtaining information about schools, requirements, and application procedures. Two faculty committees, the Pre-dental and Pre-medical Advisory Committees, furnish guidance to students through the HPIO and furnish evaluations of SIUC students applying to dental, medical, optometry, and podiatry schools after careful review of the students' qualifications.

Many pre-professional students will be in the undergraduate college four years and, since there are no degrees awarded in pre-professional programs, students may choose any major, combining its departmental and other University graduation requirements with the requirements of the professional school.

Generally, pre-professional requirements include courses in biological sciences, chemistry, English, mathematics, and



physics. Specific courses within these disciplines and additional requirements in social sciences and humanities vary with the health career sought and, to some extent, with individual schools. The application process for most professional schools begins a year in advance and includes an admissions test.

SIUC is one of the minority of universities having an office and a full time advisor to help with the pre-professional concerns of health career students in addition to academic advisors who guide the students' total course selection.



School of Agriculture

The School of Agriculture is blessed with the facilities, the personnel, and the geographic location that make it one of the outstanding study, research, and service centers for agriculture and forestry in the midwest. In addition to classrooms and laboratories, University facilities which are devoted to teaching and research in the School of Agriculture include nearly 2,000 acres of farm and timber land, 15,575 square feet of greenhouse space, and a special center devoted to each of six species of livestock. Area resources which are available for field study, research, and practical laboratory experiences include the USDA Forestry Sciences Lab, located on campus; the nearly 240,000-acre Shawnee National Forest, the Tree Improvement Center, and several state parks.

Although the primary responsibility of School of Agriculture faculty is good teaching, research shares a near-equal priority. Research supports graduate student programs and serves to discover new or improved agricultural information. Areas of investigation range from animal nutrition to animal waste disposal, from walnut genetics to wood technology, from strip-mine reclamation to greenhouse production practices for ornamental plants, from farm credit to farm marketing, from zero tillage to soybean breeding for nematode resistance, and from agricultural education to park and recreation areas' use. This broad range of research topics reflects the areas of interest of faculty and students and their response to current demand for new and improved agriculture information.

School of Agriculture students come from both rural and urban homes, and approximately 30 percent are women.

Over 90 percent of the faculty hold the doctorate, and among the faculty there are graduate degrees from more than 30 of the most prestigious schools or colleges of agriculture in the nation. SIUC is a member of the National Association of State Universities and Land Grant Colleges (NASULGC).



College of Business and Administration

The College of Business and Administration provides excellent training to students interested in managerial careers in business, government, and public-service organizations. The programs offered are also attractive pre-law alternatives in that the education provided is not only an excellent preparation for law school but, more importantly, business training is invaluable in the actual practice of law. Many students who are undecided about a career find the programs within the college valuable because they prepare the

student for a wide variety of employment possibilities.

Students can take classes from national authorities in accounting, organizational behavior, operations research management, marketing, and investments—faculty whose works have been published in the *Accounting Review*, the *Harvard Business Review*, the *Journal of Finance*, *Management Science*, the *Journal of Marketing Research*, and *Operations Research* just to mention a few. The faculty of the college emphasizes excellence in instruction.

Many opportunities for professional development exist outside the classroom environment. Several active student organizations operate in the college and allow the individual students to become involved and to develop many qualities which will be of use in their later professional careers. Programs, such as the Alumni Lecture Series and Executive of the Day, enable students to meet successful business executives and to discuss opportunities and problems with them.

In this day of computers, students in the college can become acquainted on a hands-on basis with the college's small business computer. In many classes students are given actual business problems for their review and consideration. In brief, educational experience in the college is relevant and deals with real world situations.

Students may also be able to culminate their professional growth during their senior year by completing an internship program. Perhaps most important, they usually find upon graduation that their training is in demand by employers, many of whom come to the campus to interview them during their senior year.

Ample graduate opportunities are also available to those students who desire





BRIAN MATSUMOTO

further training in business administration. Students, whether undergraduate or graduate, discover that the college provides a quality education. Accreditation by the Accreditation Council of the American Assembly of Collegiate Schools of Business attests to this.

College of Communications and Fine Arts

The College of Communications and Fine Arts offers a level of professional instruction that has made it one of the most popular and attractive academic units on campus.

Each school or department in the college has a success story of its own. The Department of Radio-Television reinforces formal academic training with plenty of practical experience. The University operates two maximum-power full-color television stations serving 51 counties as well as a 50,000 watt stereo FM radio station serving three states. Theory merges with experience on the air to

create a highly successful academic program.

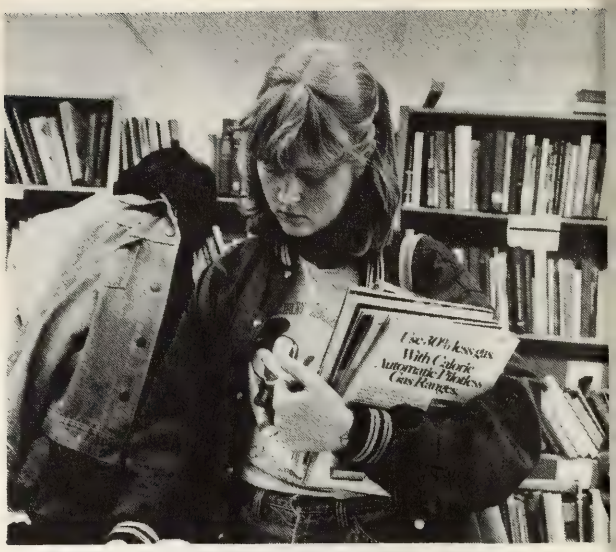
The operating matrix for the Department of Theater includes an ultra-modern main stage theater with a seating capacity for 600, plus a 150-seat theater for student productions and experimental works.

The School of Journalism is considered one of the best in the nation and offers students modern facilities, sophisticated equipment, thorough training and practical experience. Journalism students can work for one of the best college newspapers in the country, the *Daily Egyptian,* with a daily circulation of 20,500, gain experience, and get paid while doing it.

The program in the Department of Speech Pathology and Audiology prepares students to be certified speech pathologists and audiologists at both the state and national levels. Three degrees, B.S., M.S., and Ph.D., are offered combining extensive coursework at all levels as well as extensive training in the University's Clinical Center.

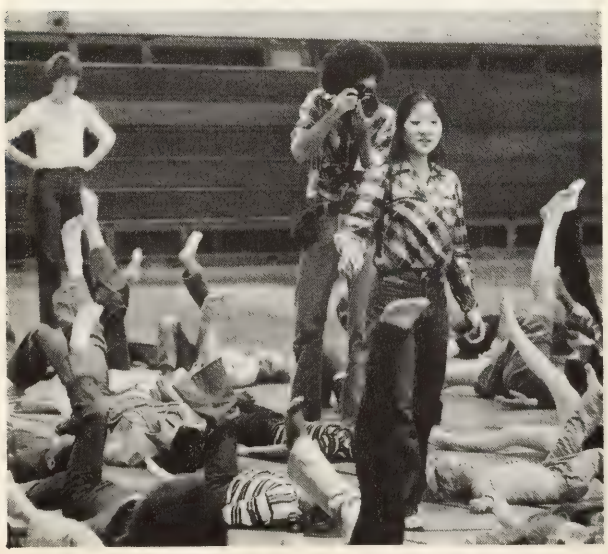
The Department of Cinema and Photography provides students with modern darkrooms and studio facilities for the production of cinema and still photography. A comprehensive curriculum with various specializations is designed to meet the interest and professional needs of students.

Some of the best sounds in the nation are produced by the School of Music. Graduate and undergraduate programs are directed toward producing performers, composers, historians, and music educators. You will find eighteen performing groups in regular rehearsal, producing over 130 events locally each year, and many performances by touring groups.



The School of Art emphasizes three major areas: studio, history, and education. Studio majors in painting, drawing, and prints are prepared to work independently as artists or in commercial studios and business. Students in crafts are prepared for independent pursuits in their own studios or for larger workshops. Students in education are equipped to meet all requirements for teaching in the public schools. For the art history majors, there's advanced work at the graduate level and college teaching.

The Department of Speech Communication prepares students for careers in professional, instructional, and artistic communications. Four separate majors allow students maximum flexibility. Besides majors in general speech, speech education, and oral interpretation, the public relations major is one of the more outstanding in the midwest.



College of Education

Training teachers is the special function of the College of Education. Most students who enroll in the college pursue teaching programs which are approved by the National Council for Accreditation of Teacher Education and the State Certification Board in Springfield. The College of Education grants both the Bachelor of Science and Bachelor of Music Education degrees.

A non-teaching option is offered by the Department of Recreation within the college. This major prepares students for positions in the management of people's

leisure time pursuits and has four different specializations: (1) Park and Community Recreation; (2) Therapeutic Recreation; (3) Outdoor Recreation; and (4) Commercial Recreation Management.

Programs leading to teacher certification in Illinois are offered in Elementary Education, Early Childhood Education (K–3), Early Childhood Pre-school Education, and 23 secondary education majors. The Early Childhood Education Preschool specialization is offered jointly with the Department of Child and Family in the College of Human Resources and is designed specifically to prepare future teachers of children under 6 years of age. Students majoring in Special Education are prepared to work with behaviorally disordered, mentally retarded, and learning disabled children.

In the Department of Vocational Education Studies programs are designed to prepare persons for teaching, supervisory, and leadership roles in elementary schools, secondary schools, colleges, military, and industry in many different areas of vocational and pre-vocational education. Included in these offerings are both certification and non-certification programs.

The Teacher Education Program provides students with a wide variety of clinical experiences in public school settings prior to the semester of student teaching. In such experiences, students participate with certified teachers in planning, delivering, and assessing learning experiences for children and adolescents. Student teaching, the final professional education classroom experience in the Teacher Education Program, is possible in selected public school teaching centers in communities in Illinois. Student





teaching centers are located not only in southern Illinois cities such as Carbondale, Herrin, Marion, and Mt. Vernon but also in Belleville, Springfield, and the suburban Chicago area.

Although some teaching fields continue to be over-crowded, employment opportunities for teachers are good to excellent in such fields as agriculture, business education, industrial arts, mathematics, physical science, and special education. The willingness to locate in any geographic area is a key factor in finding a teaching job. Graduates from SIUC now teach in all 50 states and in many foreign countries.

College of Engineering and Technology

Optimism and concern are qualities in an engineer equally important to technical expertise: optimism, because an engineer must believe that the complex problems confronting society today are surmountable; concern because she/he must want to find a solution, the best solution.

If you are optimistic and concerned about the physical world around us, the College of Engineering and Technology can provide training in the technical expertise to cope with it.

The college offers strong academic programs that clearly conform to presently understood definitions of engineering, engineering technology, industrial technology, and mining technology curricula. The programs are modern and prepare graduates for a wide range of jobs in industry and government agencies. SIUC is one of relatively few institutions

offering such a broad spectrum of training for the engineering and allied engineering professions. All options under engineering (except the new mining engineering option initiated in the fall of 1979) as well as the specializations in engineering technology are accredited by the Accreditation Board for Engineering and Technology (ABET, formerly ECPD). The industrial technology program, including mining technology, is accredited by the National Association of Industrial Technology.

Faculty members of the college have been carefully selected, with attention not only to their formal training (most have the Ph.D.), but to experience in industry as well. Further, they have come from a wide range of recognized institutions. Class size, interested faculty, and faculty involvement with student organizations have encouraged close student-teacher relationships.

Experienced faculty members, chosen for their interest and ability to relate to students, serve as academic advisors.

Facilities are modern and attractive. The engineering and technology building complex, completed in 1967, is located adjacent to campus lake. Laboratory equipment is of preferred quality.

Opportunities in engineering and technology are excellent for the foreseeable future. Young men and women interested in meeting society's needs through the application of technological know-how are encouraged to consider one of these challenging fields.

General Academic Programs

SIUC's extensive interdisciplinary programs are administered by the General Academic Programs unit. For example, the General Studies Program and advisements, for students undecided about a major, discussed earlier, are both overseen by General Academic Programs. The unit also supervises the University Honors Program and the Center for Basic Skills and Special Supportive Services Programs. In addition, General Academic Programs administers the degree programs described below.

University Studies

The University Studies degree program is offered to serve the student who wants a broad general education without specialization on the undergraduate level. This program allows the students to outline their own curriculum with few restrictions.



Students who have completed one year of college level coursework with a 2.25 grade point average ($A=4.0$) may petition to enter the University Studies program. The program is administered by the dean of General Academic Programs. Students basically devise their own curriculum from the course offerings of the various colleges and schools within the University, but within the framework of the University Studies major. The student pursues either the Bachelor of Arts or the Bachelor of Science degree in University Studies.

Special Major

A student with academic needs not met in an existing major may arrange a special undergraduate degree program in lieu of a standard curriculum. This special major is developed by the student, in consultation with a faculty sponsor and with the approval of the dean of General





Academic Programs, to fulfill special needs and interests. The degree is granted by the appropriate academic unit in the University.

College of Human Resources

People-oriented career education is the thrust of the College of Human Resources. The college's four undergraduate divisions offering eight majors make manifest this goal.

The administration of justice division offers the Bachelor of Science degree in administration of justice, for the student who is concerned with the problem of crime—its causes, prevention, and control —and the adjudication and treatment of offenders.

The primary concern of the division of comprehensive planning and design is design of aspects of human environment ranging from body covering through shelter to communities. A major in clothing and textiles allows undergraduates to specialize in either retailing or apparel design. Students may earn credit for off-campus study tours and work experience. The design major provides specialization in visual communications and product design. The interior design major offers a professionally and architecturally oriented program of study, and is among the few in the nation to achieve accreditation by the Foundation for Interior Design Education Research.



The division of human development focuses on family and related services. The child and family major permits specialization in either pre-school programs, to prepare graduates for positions in private schools or residential facilities for exceptional children, or in pre-school/early childhood programs leading to certification by the state of Illinois. Students wishing to work in consumer affairs or family services find the family economics and management major excellent preparation. Specializations in dietetics, food and lodging systems management, and food and nutrition science have been developed to meet the individual and professional needs of students in the food and nutrition major.

The fourth division is social and community services, which emphasizes service to society in its programs. The social welfare major offers a professional curriculum covering the principles and skills of developing and delivering services to individuals, groups, and communities. A minor is available in black American studies.

College of Liberal Arts

Help preserve remnants of an ancient American Indian civilization; understand climatology and mold the earth's physical and social environment; serve as a legislative intern—these are just a few of the dynamic opportunities available to students in the College of Liberal Arts.

Whether you choose to study anthropology, geography, political science, or one of the many other liberal arts majors, you will come a little closer to comprehending the infinite variety and intricacy of human society, and the richness of cultural heritages. Through the college's interdisciplinary courses you can examine those forces which are shaping life today, among them law in



American society and values in the communication arts.

Explore the world around you in such majors as economics or history. Or, develop an understanding of contemporary society and problems through the Department of Sociology. Research the effects of brain damage or how to control compulsive behavior in the Department of Psychology.

As important as understanding the life around you is the ability to communicate that understanding. The Department of English sharpens communication skills for use in creative writing, for pre-professional study, for teaching communication skills to others, or for exploration of life in literature. You can study foreign languages and cultures to gain a unique vantage point on your own language and culture or to develop bilingual skills useful in business and government careers. You can also probe the workings of language itself in the Department of Linguistics. The Department of Computer Science shows you how to process the myriad bits of information required for understanding the world around you. Mathematics is yet another mode of communication in exploring the inter-relatedness of things.

Finally, you can wrestle with the thorniest problems of meaning, ethics, and reality in the Department of Philosophy. Or, with a major in religious studies, develop an appreciation of the role of religion in human experience, from the archaic and primitive to Judaism, the religions of the Far East, and Christianity.

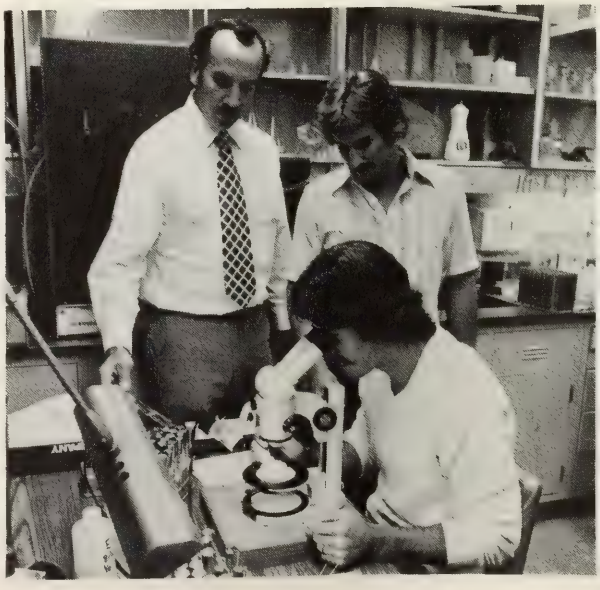
A solid liberal arts background is a definite asset in pre-professional study.

The College of Liberal Arts maintains a pre-law advisory committee to counsel prospective lawyers with up-to-date information and guidelines. Pre-medical and pre-dental students also find liberal arts majors invaluable training.

College of Science

The College of Science is composed of the Departments of Botany, Chemistry and Biochemistry, Geology, Microbiology, Physics and Astronomy, Physiology, and Zoology. Included in the academic programs offered by the faculty are the following interdepartmental programs: undergraduate and graduate programs in biological science; a graduate program in molecular science; baccalaureate preprofessional programs in dentistry, medicine, pharmacy, and veterinary medicine; and special majors. The College of Science also offers a baccalaureate degree in mathematics.

The philosophy and aim of the College of Science is to provide academic programs which give students a sound command of basic principles, versatility of mind, insight and perspective concerning scientific phenomena and the habit of continued learning. It maintains a commitment to foster for its students those qualities of intellect and character which distinguish truly educated men and women sensitive to the problems of people and their environment and dedicated to their resolution. The continuing search for new methods of teaching, rapid assimilation of new knowledge into teaching programs, and constant emphasis on self-criticism are evidences of the





faculty's commitment to maintain and extend high quality in professional standards for its teaching and research.

New areas of scientific enterprise and educational pathways, presently called interdisciplinary approaches, which constitute the true scientific disciplines of tomorrow have already been initiated to channel the student along modern educational paths worked out by cooperative efforts of scientists from various areas. This is to ensure that students will be prepared as adequately as possible for coping successfully with the manifold new problems which they will have to face as leaders in a highly advanced scientific technologic society.

Students may pursue specialized training and research with the most current scientific equipment available. Several spacious air-conditioned buildings house classrooms and research laboratories. The large vivarium is considered to be one of the best in the country. Other facilities include a library of well over 1.6 million volumes, computer units, a series of experimental ponds, shops to aid in design and construction of research needs, a ten-acre wildlife enclosure, and four outdoor laboratory accommodations. The geographic location and physiographic features of Southern Illinois offer unequaled opportunities for the use of natural and man-made environments in teaching and research.

School of Technical Careers

The School of Technical Careers (STC) provides a full range of career-oriented programs, from the associate degree through post-associate specializations to individualized baccalaureate programs. It is a unit unique to Southern Illinois University at Carbondale, which was one of the first major universities in the nation to initiate vocation-centered programs.

The School of Technical Careers is geared to serve the educational needs of its students in their pursuit of immediate and long-range goals. Its progressive levels of instruction accommodate students' needs for recurrent or "stop-in, stop-out" education, permitting alternate periods of work and study.

High school graduates, college transfer students, returning veterans, teachers seeking to keep abreast of advancement in their fields, adults who want to improve or re-direct their career preparation—all of these find a place in the School of Technical Careers.

Associate and post-associate career programs are offered in 20 fields. These are high-demand programs which are not readily available in community colleges, such as aviation technology, or programs which draw from other resources of the University, such as physical therapist assistant or photographic and audio-visual technology. The school conducts the state's only public mortuary science and funeral service program. Programs in law enforcement and correctional services have the benefit of cooperation with state and federal penal institutions and with the University's Center for the Study of Crime, Delinquency, and Corrections. Post-associate specializations, such as court and conference reporting, give students the opportunity to build upon their



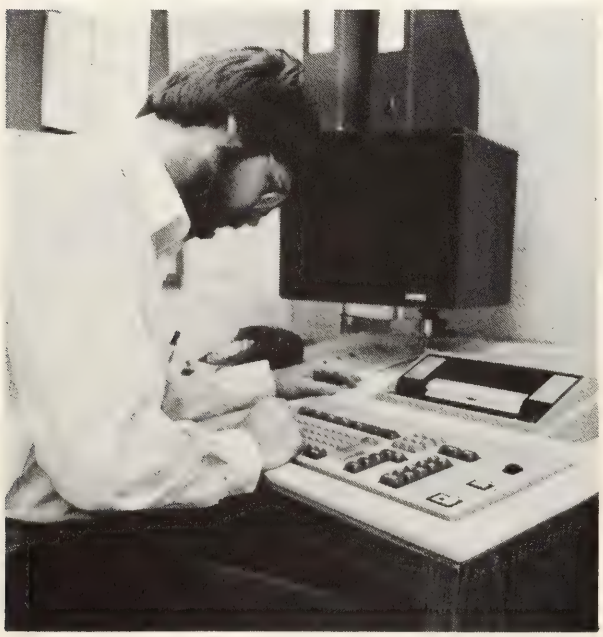
associate degree work with added studies necessary for licensure or those needed to meet the special requirements of a particular career field.

The baccalaureate degree program in technical careers is unique to this school. It is designed to meet the educational needs of the career-oriented student which are not filled by existing programs. Many types of previous educational and occupational experiences may be applied to this program. The student, in consultation with advisors, develops a course of study designed to meet the individual's own career objectives.

For example, a student who plans to make a career in preventive dental hygiene may combine studies in health, food and nutrition, guidance, and physical education with the dental hygiene program to develop an individualized four-year program. Or, the individual who wishes to go into graphic arts management might add studies in business, journalism, and administrative sciences to programs in commercial graphics or printing.

The student whose goal is operation of an automobile dealership or maintenance facility can combine business, management, and industrial technology courses with studies in automotive technology. One who sees career possibilities in designing funeral home facilities might study architecture, interior design, and mortuary science.

Possible courses of study and combinations of interests in this program are as limitless as the needs of the students enrolled.





Graduate and Professional Study

A significant part of what makes SIUC a comprehensive university is the variety of graduate and professional study. Advanced research in a program adds depth to undergraduate study and assures that subject matter, treatment, and facilities are up-to-date, not to mention down-right exciting!

Graduate School

At Southern Illinois University at Carbondale, the primary concern of the Graduate School is graduate instruction and research. The Graduate School therefore plays an essential role in development of instructional and research programs, in acquisition of funds, and in procurement of facilities necessary to encourage and support research by members of its scholarly community. Through students who meet the Graduate School's high standards of achievement by completing advanced courses of study and through students and faculty members who achieve significant results in their research, the Graduate School makes its contribution to the public welfare of the region, the state, the nation, and a number of other countries.

MASTER'S DEGREES ARE AVAILABLE IN THE MAJOR FIELDS LISTED BELOW

Accountancy
Administration of Justice
Agribusiness Economics
Agricultural Education & Mechanization
Animal Industries
Anthropology
Art
Behavior Modification
Biological Sciences

Botany
Business Administration
Business Education
Chemistry
Cinema and Photography
Community Development
Computer Science
Early Childhood Education
Economics
Educational Administration
Educational Media
Elementary Education
Engineering
Engineering Biophysics
English
English as a Foreign Language
Environmental Design
Foreign Languages and Literatures
- French
- German
- Spanish

Forestry
Geography
Geology
Guidance and Educational Psychology
Health Education
Higher Education
History
Home Economics Education
Journalism
Latin American Studies
Linguistics
Mathematics
Microbiology
Mining Engineering
Music
Occupational Education
Philosophy
Physical Education
Physics
Physiology





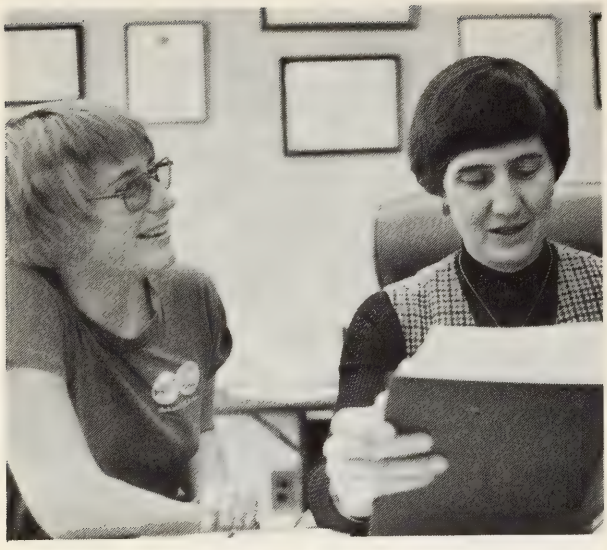
Plant and Soil Science
Political Science
Psychology
Public Affairs
Public Visual Communications
Recreation
Rehabilitation Administration and Services
Rehabilitation Counseling
Secondary Education
Sociology
Special Education
Speech Communication
Speech Pathology and Audiology
Statistics
Theater
Zoology

SPECIALIST DEGREE PROGRAMS ARE AVAILABLE IN THE FIELDS LISTED BELOW

Educational Administration
Elementary Education
Guidance and Educational Psychology
Secondary Education

DOCTOR'S DEGREES ARE AVAILABLE IN THE FIELDS LISTED BELOW

Anthropology
Botany
Business Administration
Chemistry
Economics
Education
English
Geography
Historical Studies
Journalism
Mathematics
Microbiology
Molecular Science
Philosophy
Physiology
Political Science
Psychology



Rehabilitation–Doctor of Rehabilitation
Sociology
Speech Communication/Theater
Speech Pathology and Audiology
Zoology

School of Law

The SIUC School of Law program had a big head start when it opened in 1973.

Hiram H. Lesar, respected dean of the School of Law at Washington University, came to SIUC as the school's first dean. The nucleus of a strong faculty, experienced in legal practice and teaching, joined him in the venture. The first-year class of law students entered in September, 1973.

The main purpose of the School of Law is to train lawyers who will be competent to practice both now and in the future. This involves more than teaching specific legal rules. It includes additional emphasis on analytic skills, research techniques, and the basic legal principles and policies underlying those rules.

When the new School of Law building is completed, plans call for an enrollment of 350 to 450 students, with a full-time faculty of 27. In the meantime, the school occupies three buildings in Small Group Housing near Lake-on-the-Campus. One building houses classrooms, and offices, a second houses the main part of the library, and a third building contains a classroom, faculty offices, the *Law Journal,* and the library technical staff, providing adequate facilities for a school of 200 students.

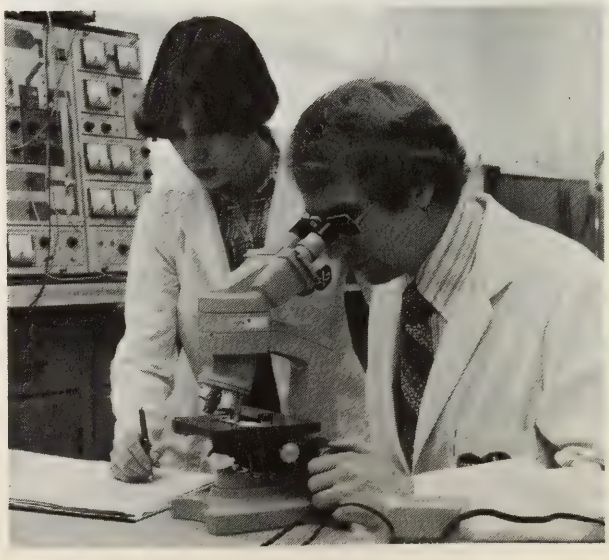
Law studies span three years (90 semester hours) and lead to the Juris Doctor (J.D.) degree. The first-year curriculum includes the most basic courses and is required. Second- and third-year courses, mostly elective, are offered in all major fields of law. Students who wish can therefore take a number of courses in such specialized areas as administration of criminal justice, business, civil litigation, legal problems of the disadvantaged, managing the environment, public law, taxation and estate planning, and international law.

Southern Illinois University at Carbondale also gives special attention to those students interested in a pre-law education providing a pre-law advisory committee which meets regularly with interested students.

School of Medicine

The SIU School of Medicine conducts a program which takes advantage of existing University resources on the Carbondale campus as well as the long-established and excellent clinical facilities in Springfield. This split-campus organization allows the School of Medicine to make the fullest use of available resources and strengthens the school's commitments to academic excellence and continuing educational support of practicing physicians.

The first year's work is taught on the Carbondale campus, and the remainder of the program leading to the M.D. degree is offered in Springfield. Faculty are drawn from the University and from the medical communities in both cities. The curriculum is flexible and innovative. Material in the sciences basic to medicine, as well as in the behavioral and social sciences, is organized around organ systems rather than by the traditional disciplines, emphasizing the inter-relationship of classwork and clinical cases.



By setting clear performance goals and allowing students substantial latitude in choosing the means of achieving them, the school believes its clinical and academic programs are producing physicians, educated to practice in Illinois, who will continue their professional growth throughout their years of practice.

Morris Library

Morris Library contains over 1,500,000 volumes, 1,600,000 units of microform, more than 17,000 periodicals, and hundreds of thousands of government documents, maps, and other materials. Morris Library is one of the larger open-shelf, subject division, academic libraries under one roof in the country, with a library



staff which recognizes the complexity involved and is eager to assist users with their information needs.

The main collection is contained in four subject divisions (Education/ Psychology, Humanities, Science, and Social Studies). The Undergraduate Library, located on the first floor, has a representative collection of works in areas of potential usefulness to the undergraduate student, containing over 80,000 volumes, along with pamphlet materials on a variety of subjects.

Learning Resources Service provides a wide range of services of interest to beginning or transfer students. The Self-Instruction Center contains materials to aid in preparing for exams, reviewing previously-covered material, and exploring areas in which the student is interested. These materials include audio tapes,



slides, films, and other course-related instructional materials. PLATO (computer-assisted instruction) terminals and electric typewriters are available for use. A student Media Design Lab enables the student to produce a variety of audio and visual materials for use in class presentations and student-teaching experiences.

A rare books collection, manuscripts, and University archives are located in Special Collections on the second floor. Interesting exhibits highlighting the collection are mounted throughout the year.

Opportunities for new and transfer student orientation to the library are varied. Two one-credit-hour courses. "The Library as an Information Source" and "Techniques of Information Retrieval" (a University Honors Program course), are offered. Tours and presentations in the subject divisions and the Undergraduate Library are offered. Printed brochures, pamphlets, and guides, as well as media orientation presentations, are available. The library staff is ready to provide suggestions and assistance in your use of the collections and services of Morris Library.

Special Programs

Touch of Nature

The Touch of Nature Environmental Center is offering a three-level course program for high school students to provide them with a better understanding of current environmental problems. These are not classroom courses but are outdoor learning experiences: feeling nature,

Campus Map

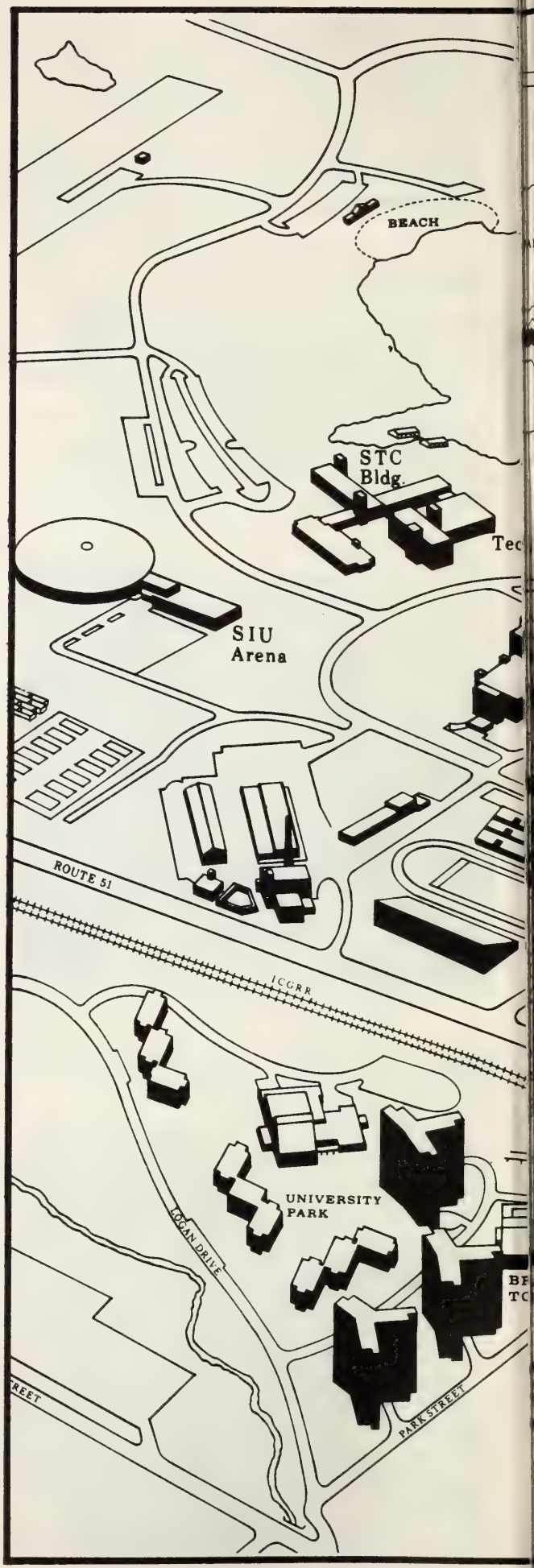
Prospective students and their parents should note the location of Woody Hall. The Office of Admissions and Records is located in this building and its School/ College Relations Division will make arrangements for you to tour the campus or visit with various service or academic departments.

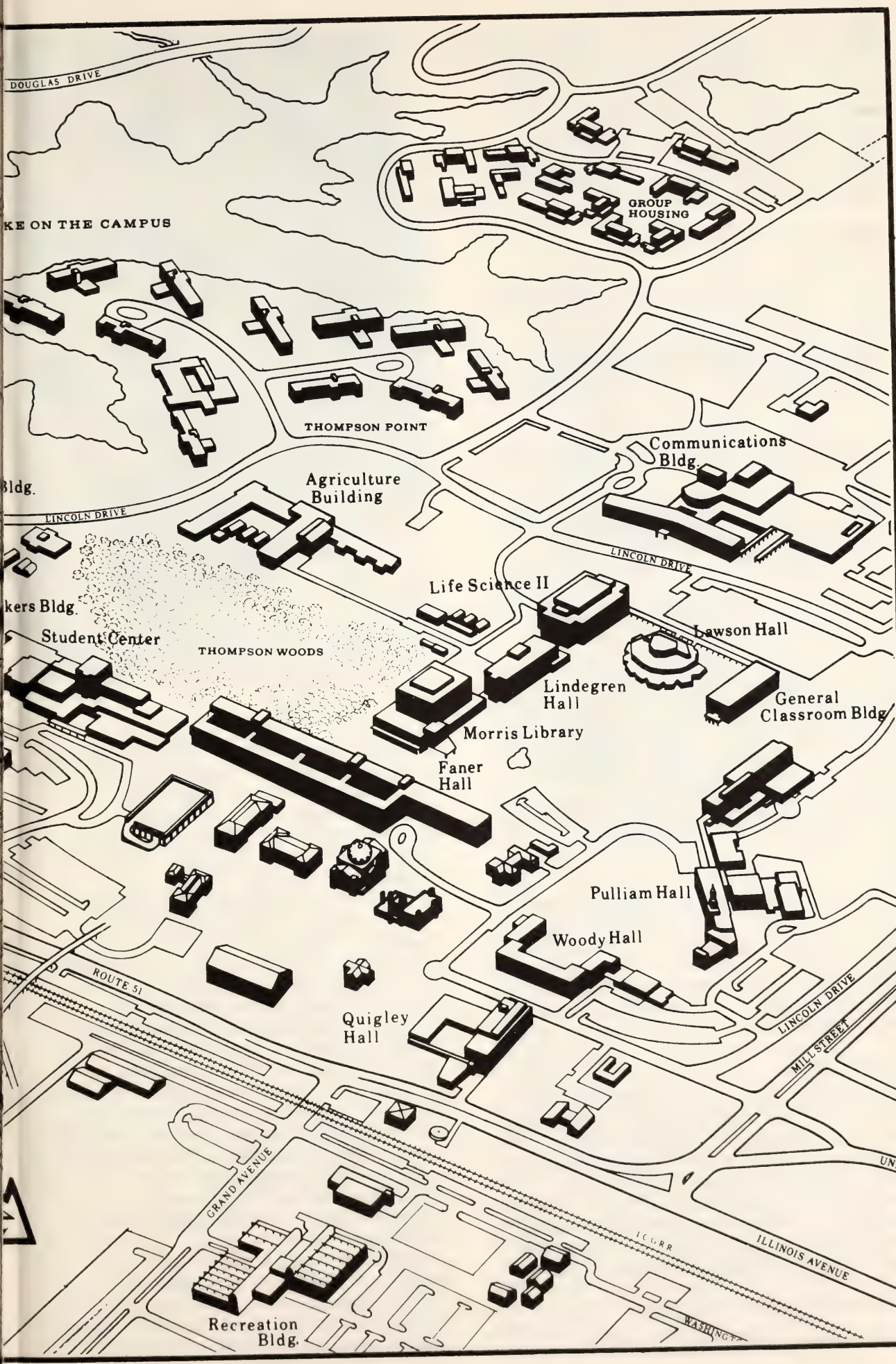
Parking is permitted in the lots near the Student Center or directly behind Pulliam Hall. The parking lot directly north of Woody Hall is metered and limited to 30 minutes.



BRIAN MATSUMOTO






DOUGLAS DRIVE
KE ON THE CAMPUS
GROUP HOUSING
THOMPSON POINT
Communications Bldg.
Agriculture Building
LINCOLN DRIVE
Life Science II
Lawson Hall
kers Bldg.
Student Center
THOMPSON WOODS
Lindegren Hall
General Classroom Bldg.
Morris Library
Faner Hall
Pulliam Hall
Woody Hall
ROUTE 51
Quigley Hall
LINCOLN DRIVE
MILL STREET
GRAND AVENUE
ILLINOIS AVENUE
Recreation Bldg.

getting deeply involved with plants, forests, lakes, and various kinds of wildlife. Touch of Nature consists of 6,500 acres of rolling hardwood forest, meadows, caves, plus the thousand-acre Little Grassy Lake as well as numerous other natural areas. Workshop participants live in heated, well maintained cabins and are provided with meals noted for their quality.

Early Admission/Concurrent Enrollment

Are you a high school junior? Would you like to sample the academic offerings at SIUC, or get a head start on college requirements? The Early Admission Program permits exceptionally capable high school students (recommended by their school and approved by the University's director of admissions) to enroll in college level courses, for college credit.

High school juniors (seniors to be) can enroll in up to 8 semester hours during the summer term and/or can take credit concurrently during the senior year.

Proficiency Examination and Advanced Placement

SIUC recognizes the importance of encouraging academically talented students to earn credit by examination. A total of 30 semester (45 quarter) hours of college level credit may be applied to the student's record from various proficiency examinations, the College Level Examination Program, and the CEEB Advanced Placement Examination.

Pass/Fail

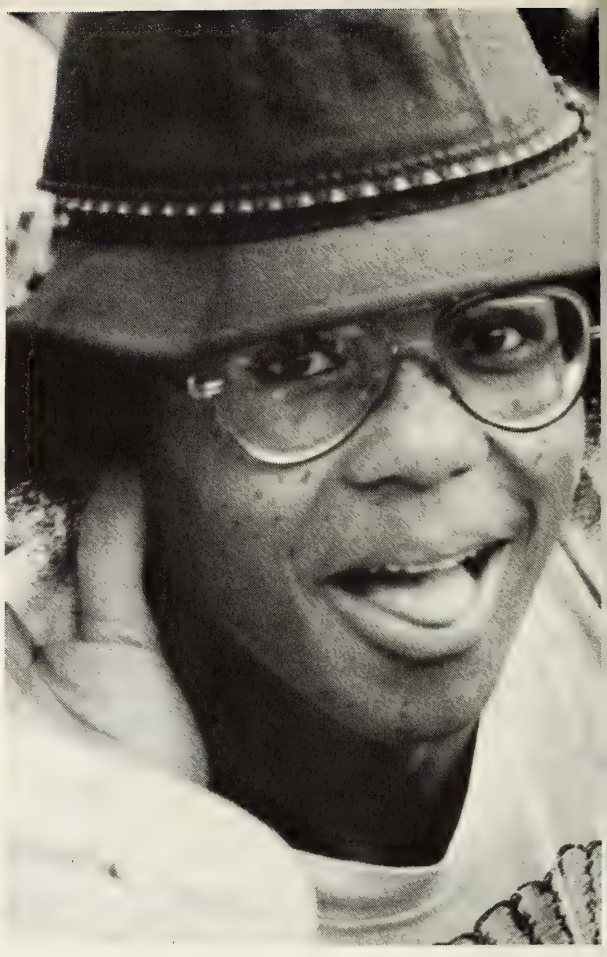
A qualified student may register for some courses on a *Pass/Fail* basis. The purpose of this grading option is to allow students to explore fields outside their major competence in a relaxed manner and without competing for grades with majors in that field.

Honors Work

Most departments offer special honor courses, honors sections in regular courses, and independent reading and study courses which are open to all qualified students. Individual honors work is available (in major studies) for outstanding students who want a heavier concentration of research or independent study in their junior and senior years.

University Honors Program

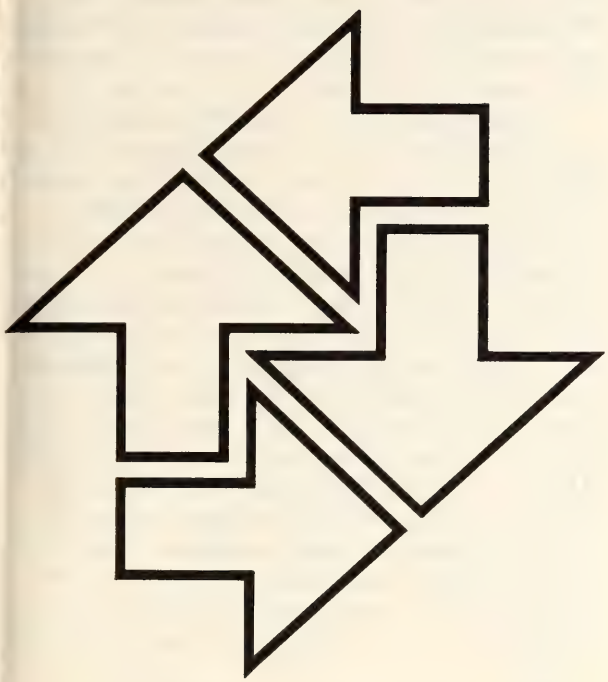
The University Honors Program is



designed to enable academically talented students to profit from an association with each other, to achieve maximum flexibility within the framework of the general University curriculum, and to take fullest advantage of the talents and resources in the University.

The Council of University Scholars, composed of students, and the Honors Council, composed of students and faculty, work with the director of honors opportunities to advance the program and to develop special courses and activities. The university honors staff helps the scholars, both individually and in groups, to obtain the best curricular and extra-curricular conditions for excellent and rewarding academic work. The program helps enrich student programs by promoting special seminars, small classes, independent study opportunities, and internship opportunities of a challenging nature for superior students.

Test scores and high-school rank provide the basis for admission of entering freshmen to the program. Other students with high grade-point averages may be invited to join the program.



Student Services

Student Services are rarely emphasized when talking about college choices, but they are essential to your well-being after you are on campus. You certainly won't be pampered at SIUC, but you will find a genuine effort to provide the support you will want and need in order to get the most from your college experience.

Specialized Student Services is a good example of the University's concern for the individual. Handicapped students meeting the University's academic qualifications will be admitted and will be provided the assistance required to make their educational experiences meaningful and rewarding. Assistance includes counseling for specialized needs, help in finding attendants, a wheelchair repair service, a transportation service, and even the scheduling of individual exams where required by the disability.

If you are in a wheelchair, you will find ramps and elevators and a continuing effort to achieve a campus community free from architectural barriers. You will find opportunities to participate in wheelchair athletics and similar activities. Special arrangements are provided for parking and for attendance at events in the SIU Arena and campus auditoriums.

Academic support services are offered to students who are non-ambulatory, semi-ambulatory, visually impaired, hearing impaired, learning disabled, or otherwise permanently disabled. For instance, a visually impaired student may receive taped textbooks, special equipment, and orientation and mobility training. These special support services are offered so that disabled students will have the opportunity to participate and compete in all SIUC programs and activities. The Specialized Student

Services office may be reached by calling 618-453-5738 (voice or TTY).

A comprehensive health care program provides a full range of medical services for all SIUC students. Included is 24-hour emergency and ambulance service, hospitalization coverage, specialty care, major medical coverage, and out-patient care. Preventive health care is emphasized through programs on life-styling, drug abuse, and human sexuality.

The Counseling Center provides professional, confidential counseling for mild temporary problems, as well as for serious psychological counseling which provides an opportunity to accelerate your personal growth in a group situation. Topics include sex-role awareness, effective interpersonal relationships, self-modifications skills, assertiveness training, and empathy training.

Testing services for pre-admission, graduate school, and pre-professional examinations are available, as well as a wide variety of aptitude and academic proficiency tests.

Student Work and Financial Assistance

The Office of Student Work and Financial Assistance coordinates most of the financial assistance programs for students attending the University. Counselors are available to confer with you regarding budgetary planning, job placement, personal responsibilities, and optional categories of aid programs and services designed to assist in the financing of your education.

SIUC participates in the four major federal aid programs: Basic Educational Opportunity Grant (BEOG), National Direct Student Loans (NDSL), Supplemental Educational Opportunity Grants (SEOG), and College-Work Study (CWS). In addition, specialized programs in health and law enforcement are available.

A wide variety of state aid programs are also available, including the Illinois State Scholarship Commission's Monetary Award (ISSC) and the Illinois Guaranteed Loan Program (IGLP). SIUC offers institutional assistance through academic scholarships, NCAA awards for men, AIAW awards for women, scholarships in the performing arts, assistance to residence hall staff, student-to-student grants, and foundation scholarships. In addition, scheduled benefit payments such as social security, veterans administration, railroad retirement, and food stamps, as well as private assistance including scholarships, grants, short-term loans, off-campus work referrals, and summer work placement, are aid opportunities available to you as a student at SIUC.

The opportunity for student employment is available to all students regardless of financial need. Work-study earnings are calculated as financial resources, however, and treated like other aid income with regard to budgets on aid limitations. Over 3,600 students are employed in a variety of jobs in every area of the University. Whenever possible, the student is given an opportunity to work in the area of his or her academic interest.

A federally funded program associated with the Student Work and Financial Assistance office is the Office of Veterans Affairs. This office encourages veterans to identify and use the financial opportunities available to them as veterans. SIUC boasts the largest funded Veterans Affairs program in the nation.

Most of the processing of your financial aid will be coordinated through your financial-aid team. Three teams service the last-name alphabet groups of (A-G), (H-O), and (P-Z). These and other staff members are available to assist you with ACT financial need analysis, your student work plan, a short-term loan, or to help with a private scholarship or grant.

Applying for 1981–82 Financial Aid

Step 1. Complete and mail an American College Testing Program's Family Financial Statement (ACT/FFS) as your application for all campus based aid. Through it, you have the opportunity to apply for BEOG, SEOG, College Work-Study, and NDSL. In addition, no application for student employment may be considered without the submission of the ACT/FFS. If you wish to apply for SIUC-awarded grants, and/or student employment, or the NDSL, you must complete Section H of the ACT/FFS form. If you use the ACT/FFS as an application for any program other than BEOG, the processing fee made payable to ACT must be enclosed. The ACT school code for SIUC is 1144.

Step 2. All undergraduate students applying for financial assistance at SIUC must apply for the Basic Educational Opportunity Grant (BEOG). You may use the ACT/FFS to apply for BEOG by coding question 75 (a) on that form.

Should you encounter a substantial change in your financial circumstances (i.e., death in family or divorce,) a separate BEOG application must be completed, together with a supplemental form, before final processing of your aid application may be completed.

Step 3. All undergraduate Illinois residents whose family income is under $25,000, and who are applying for financial assistance at SIUC, must apply for the Illinois State Scholarship Commission's Monetary Award (ISSC).

Step 4. If you are interested in financial aid for the summer term, contact the Office of Student Work and Financial Assistance for details during the preceding spring semester.

Step 5. Applicants must re-apply each year to reestablish their eligibility for aid programs.

Students are urged to file the ACT/FFS, which includes the application for BEOG and campus aid programs, and the ISSC applications between January and March. To allow time for your financial aid package to be processed before classes begin, the processed results of your application materials should be in our office by the dates shown below:

Fall semester, 1981—May 1, 1981
Spring semester, 1982—Nov. 1, 1981
Summer session, 1982—March 1, 1982

Career Planning and Placement

Coming to a large university affords many options in terms of curriculum, major fields of study, and complementary opportunities. You may find that you need to do some exploration and clarification to discover what program is best suited to your interests, abilities, and potential for satisfying employment.



The resources of the Career Planning and Placement Center (CPPC) are available to you for just that reason. Career counselors will work with you on a one to one basis to help you in discovering your interests, competencies, and your most meaningful avenue of academic pursuit. A library holding a wealth of occupational information is available at the Career Counseling Office. This unit also sponsors a variety of group activities where peer interaction is the mode of career decision making and exploration.

Once you have selected your major field of study you may elect to participate in the Cooperative Education Program sponsored by CPPC. Coop is an optional educational pattern that integrates periods of paid career-related work experience into academic programs. This can be either full-time work every other semester or part-time work every semester.

As you approach the final stages of your undergraduate experience, planning for your first professional job will become more and more important. The placement services of CPPC will help in all aspects of your job search. Each graduating student can establish a credential file which is sent free of charge to prospective employers even after you graduate. Placement consultants can advise about letter and resumé writing and help you define the strategy which will secure the kind of position you prefer. The Placement Office invites recruiters to campus so that students may interview with them. Vacancy bulletins are distributed weekly to persons seeking employment.

The Career Planning and Placement Center believes that the college student is wise in making an effort to understand himself or herself and in planning for the future. If you are able to identify and clarify your strengths and alternatives, you will be better prepared to face the challenge of a changing world of work and be more assured of reaching self-actualization.

University Housing

SIUC is committed to creating and maintaining in residential facilities: a physical environment conductive to study and academic excellence; an interchange of ideas among students and associates; an awareness of the needs and aspirations

of students living together in groups; support of highest health and safety standards; and quality food service at reasonable cost. Constant improvement is a watchword.

While continually striving to maintain housing facilities at the highest standards possible, the University is also aware of student needs. In recent years housing regulations have been modified to meet changing student life styles and to acknowledge students as adults. To meet these objectives many options are now available in campus housing. These include intensive study areas, choice of roommate, special housing for University Honors Program participants, greater housing selection for upperclassmen and graduate students, and 24-hour visitation rights if students desire them. Except for beginning freshmen, students may also elect to reside in residence halls where men and women live in alternating suites on each floor with each suite having its own private bath facilities. Students can also choose family housing in two locations on campus.

Special provisions also prevail for students who have scheduling conflicts. They may obtain a bag lunch to take to class if a noon mealtime conflicts with one of their classes.

Accommodations at Thompson Point are available in 11 units for 1,347 students. Each residence hall contains a classroom and a resident counselor's apartment. Each floor includes a resident student assistant's room, and two rooms on the first floor of each hall are modified for paraplegics. Halls cluster around Lake-on-the-Campus, a 40-acre spring-fed lake surrounded by 25 acres of wooded land and developed for boating, fishing, swimming, and picnicking. These buildings are all air conditioned.

Brush Towers consists of two 17-story buildings, Schneider Tower and Mae Smith Tower, housing a total of 1600 students. University Park is comprised of Neely Hall, also a 17-story building, and the Triads providing a total of 1800 spaces. All are air conditioned.

Coeducational housing is available in all three residential areas—as are all-male and all-female buildings and floors. Each residential area has a central commons building containing administrative offices, cafeteria, dining room(s), snack bar, game room, and post office.

All contracts for the on-campus residence halls include 20 meals per week and a weekly linen service consisting of two sheets and a pillow case. Phones are in each room providing the resident local phone service at no extra charge.

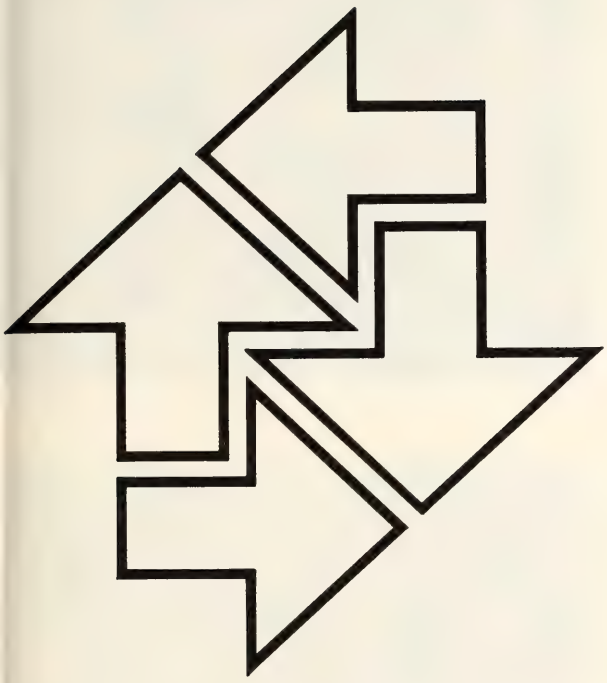
Evergreen Terrace and Southern Hills are housing areas for married students. Evergreen Terrace provides 304 two-bedroom and three-bedroom apartments, unfurnished except for refrigerator and range. Southern Hills' 17 buildings include 144 efficiency, one-bedroom, and two-bedroom furnished apartments.

Off-Campus Housing

University Housing also attempts to influence both the availability and quality of off-campus housing with respect to the educational and economic needs of students.

Approximately two-thirds of the students at SIUC live in off-campus facilities which include apartments, trailer courts, and privately-owned residence halls.





Student Life

What kind of people will you encounter at SIUC? You invest years of your life to obtain a college education, so it's important to check out a college or university's social environment as well as its academic offerings.

Students come to SIUC from both the northern and southern halves of Illinois. They are from the large cities and from the farm communities. Most are from Illinois, but all 50 states and 89 foreign countries are also represented. There is no "typical" student, but rather a diversity of individuals from a wide array of backgrounds and with varying life styles and goals. You will find some friends here who are very much like you and others whose differences will broaden your perspective and awareness of people.

New students include many who have just completed high school or who are transferring from community colleges and others who have been out of school for a while.

What can you do in addition to attending classes and studying? That's up to you. You may join some of the 241 recognized student organizations or participate in any of the 3,000 sponsored student activities. Numerous sororities and fraternities have active chapters at SIUC. An extensive intramural program offers men's, women's, and co-ed activities of organized recreation. The facilities of the campus lake, the arena, the recreation building, the tennis courts, and the playing fields are all available to you. You will find out why Southern Illinois is famous for its parks, lakes, and forests when you go picnicking, boating and hiking at Giant City State Park, Crab Orchard Lake, or in Shawnee National Forest.

The Student Center is the hub of student activities. Inside the eight acres of space there are cafeterias, snack bars, recreation rooms, a 16-lane bowling alley, television room, informal lounges, ballrooms, bookstore, and an automated post office.

Top-name entertainers, such as Marshall Tucker and Linda Ronstadt, are brought to campus for performances in the 10,000 seat SIU Arena. This multipurpose facility is used year around for athletic events, stage shows, and special programs.

Cultural events are scheduled for your enjoyment and out-of-classroom education. Such events include theater, drama, comedy, musicals, opera, concerts, dance, and informative lectures. Many of these are provided through University Convocations with no admission charge; others are offered at considerable savings to students.

There are more things to do than you will find time for. You'll find student life thrives at SIUC!



Recreation/Intramural Athletics

To complement the many social and professional organizations as well as over 3000 sponsored student activities, SIUC offers students extensive opportunities and facilities for recreation and athletics.



Students who love the outdoors regularly take advantage of the facilities available at over 8 major lakes and 11 state parks. Hiking, camping, fishing, hunting, swimming, and sailing are regular activities for the SIUC student.

If you enjoy athletic competition then the men's and women's intramural athletic program may be just your ticket. Sports for everyone regardless of ability are available. Competition in a variety of sports takes place throughout the year and many events are coed. Students compete against each other in sports such as badminton, gymnastics, swimming, basketball, softball, tennis, handball, flag football, wrestling, soccer, volleyball, bowling, inner tube water polo, racquetball, track and field, canoe racing, fencing, frisbee, and even horseshoe pitching.

Facilities play a big part in recreation time and SIUC provides the best. Lighted tennis courts, handball and racquetball courts, bowling alleys, billiard rooms, and table tennis rooms are all available presently.

The Student Recreation Center (1977) contains 140,000 square feet of space and includes an olympic-size swimming pool, eight handball courts, a large gymnasium,

three basketball courts, judo, karate and boxing rooms, a weight lifting room, a golf driving room, saunas, a student lounge, and much more.

All these facilities will be available to you when you attend SIUC. They complement your academic experience and provide many hours of fun and relaxation.

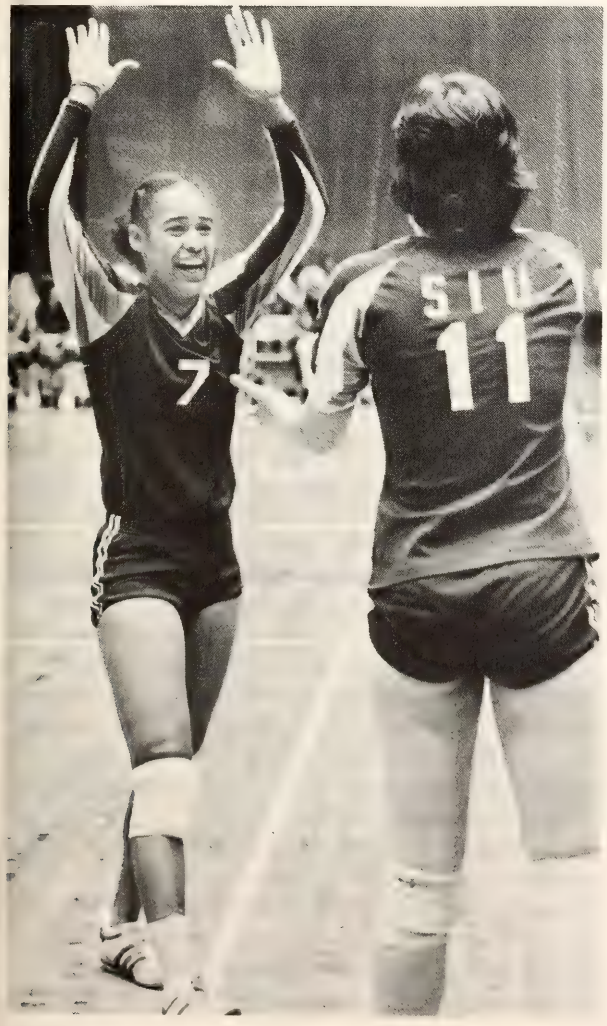
Intercollegiate Athletics

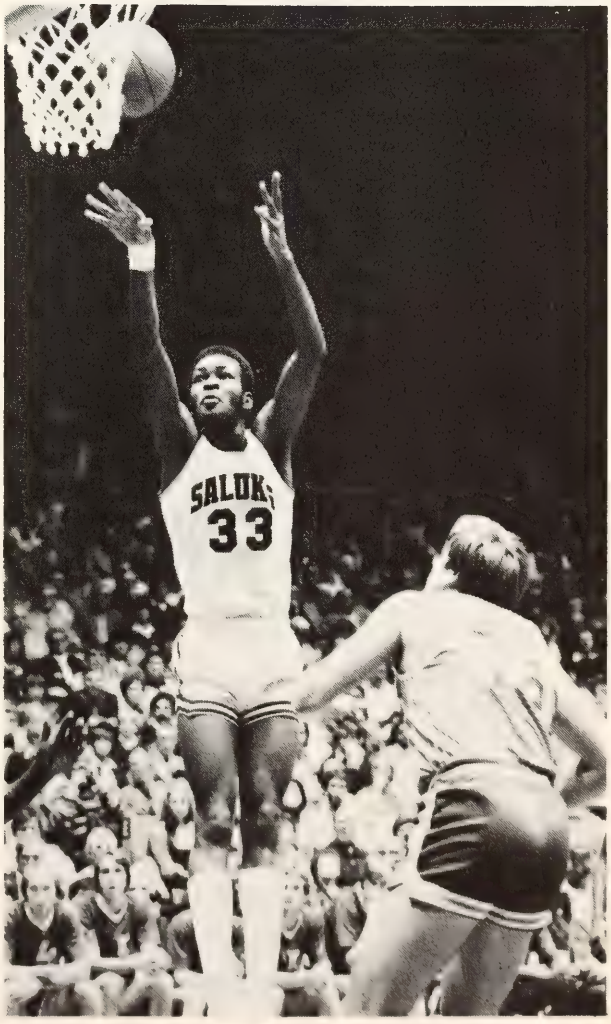
Southern Illinois University at Carbondale boasts one of the country's best all-round sports programs. The Salukis compete successfully in the National Collegiate Athletic Association's Division I in all 11 men's sports, and in Division I of the Association of Intercollegiate Athletics for Women in all 11 women's sports.

At the helms of the sports programs are two renowned leaders. Dr. Charlotte West, athletic director of women's intercollegiate sports, is a past president of the Association of Intercollegiate Athletics for Women. Her many years of vigorous leadership at SIUC have nurtured a dynamic program that has seen sports such as badminton, cross country, field hockey, golf, gymnastics, softball, and swimming and diving regularly earn high marks in national competition. In recent years the SIUC badminton, field hockey, and softball teams have earned top-ten finishes in national competition. During 1979–80 the Lady Salukis won state titles in golf and gymnastics, while qualifying individual entrants for the AIAW National competition in track and field and swimming and diving.

The SIUC women's intercollegiate sports program continues to flourish, with campus and community support increasing. This past year several prestigious women's athletic events were well received at SIUC, including the popular Collegiate Gymnastics Classic and the 1980 AIAW Division I National Volleyball Championship.

Possessors of one of the top all-around athletic programs to be found in the country, the Southern Illinois University at Carbondale men's athletic program





continues to grow in reputation throughout the United States.

SIUC competes in 11 men's sports, all of which carry NCAA Division I status. The Salukis compete in football, cross country, gymnastics, swimming, wrestling, indoor track, basketball, outdoor track, tennis, golf, and baseball.

The leader of the program is the legendary Chicago Bears running back, Gale Sayers, the athletic director at SIUC. During his tenure at Southern Illinois, the Salukis have won numerous conference and national honors in a variety of sports.

Recent honors for SIUC athletic teams include Missouri Valley Conference championships in cross country (1976 and 1978), indoor track (1976, 1977, 1978), basketball (1977), outdoor track (1975, 1976, 1977, 1978, 1979), tennis (1977), and baseball (1977 and 1978).

Additionally, the gymnastics team has won four national championships in the last 16 years (more than any other school), the swimming team has placed in the top 20 in the NCAA championships 18 times in the last 20 years and has won the National Independent Conference championship the past three years. The track team is traditionally one of the top 20 in the country and the baseball team has appeared in the College World Series five times in the last 12 years, including two second-place finishes and two thirds, the last coming in 1977.

SIUC is blessed with fine places to play in McAndrew Stadium (football and track), the SIU Arena (basketball, wrestling, gymnastics), Abe Martin Field (baseball), and the SRC pool where the swimmers compete. A fine tennis facility exists as well, along with a number of weight rooms for both the athlete and student.





Southern Illinois

Defining the geographical boundaries of this versatile and unique region is difficult, for the term Southern Illinois implies different things to different people. Chicagoans generally refer to all of Illinois outside Cook County as down-state, whereas many persons living as far as 200 miles south of Chicago don't think of themselves as Southern Illinoisans. Some would define Southern Illinois as the lower 14 or 16 counties; others would include the lower 31. It's a section commonly referred to as Little Egypt, dotted with places named Cairo, Karnak, Goshen, and Thebes, and serviced by motels, restaurants, and other business establishments using Egyptian motifs.

There are other influences that make Southern Illinois a region apart in the geography and geology of the area. Most of the state is flat, with rich soils. Much of the southern section, though, is covered by rolling hills and stone-cropped valleys. Coal, oil, fluorspar, and other mineral deposits, found so abundantly in the south as to support the economy of entire counties, taper off sharply or become nonexistent north of U.S. Route 40. The climate is considerably milder toward the south and the growing season is longer; cotton is grown in the Cairo area, and



peaches, apples, and strawberries are grown extensively almost to the northern limits of the area.

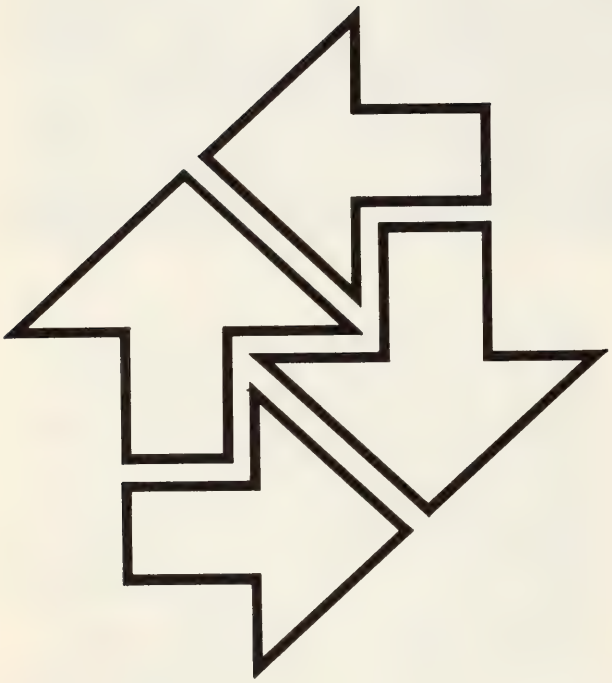
Unparalleled scenic vistas, large lakes and rivers, a pleasant climate, and abundant wildlife make the region a vacation attraction that is still relatively unspoiled. The area offers outdoor and water sports, scenery, historic sites. horse racing, hiking along Indian trails, exploring pirate caves, and family camping. Its river-bank and hill-country drives offer motorists breath-taking views, accented over the seasons by spring blossoms, galleries of summer greens and rich autumn hues. Visitors from upstate Illinois and neighboring states drive hundreds of miles in April, for example, to see acres and acres of peach and apple blossoms.

Just east of Carbondale lies 7,000 acre Crab Orchard Lake, part of a national wildlife refuge. Wildlife by the thousands, with over 100 species of birds, make the refuge their home. It's a major winter stopover for migrating Canada geese. Other federal lands offer outdoor pleasure for the sightseer and outdoorsman. The Shawnee National Forest, covering 240,000 acres in eight counties, abounds with wildlife, camping sites, and sheltered picnic spots. At Pine Hills along the Mississippi River, the U.S. Forest Service preserves 10,000 acres of virgin land and primal swamp.

Eleven state parks, within easy driving distance of each other, cover more than 6,000 acres. Within the largest of these, Giant City State Park, loom some of the nation's most amazing rock formations. Huge blocks of stone, their walls as vertical as skyscrapers, face each other across narrow canyons no wider than a city street. Another park showcase is a beautiful stone lodge flanked by rustic overnight cabins. Like all of the state parks, it has playground and picnic facilities.

As one native expressed it, Southern Illinois offers fresh, unpolluted air, plenty of elbow room, and genuine southern hospitality.





Admission Details

For Freshmen

ACT/APP

Beginning freshmen can speed up and simplify their admission by indicating at the time they write the American College Test that their test scores should be sent to Southern Illinois University at Carbondale (College Code 1144). Students who take the ACT during one of the five national test dates and send their scores to the University do not have to apply for admission. Upon receipt of test scores, students will be contacted automatically by the University. Those who achieve standard composite ACT scores of 18 or higher will be sent a special pre-printed ACT/APP. In order to be officially admitted, they must sign and return the ACT/APP with a copy of their high school transcript.

Admission Requirements

Applicants seeking admission to a baccalaureate program who have an ACT composite score of 18 or higher (SAT 770) are eligible for admission any semester. In addition, high school graduates who rank in the upper half of their graduating classes and who score a minimum ACT composite of 15 or higher (SAT 690) are also eligible for admission any semester.

High school graduates who rank in the upper two-thirds of their graduating class or who earn a minimum ACT composite score of 15 or higher (SAT 690) are admissible for the spring semester on a conditional basis. The conditions are that the student must enroll for a minimum of



12 semester hours and complete at least 10 semester hours of graded work with a minimum overall *C* average.

Students who have been admitted or who qualify to be admitted on a conditional basis may earn transfer credit at another college or university prior to their spring semester at SIUC. However, to maintain their eligibility for spring enrollment, students must earn an overall *C* average in all work attempted.

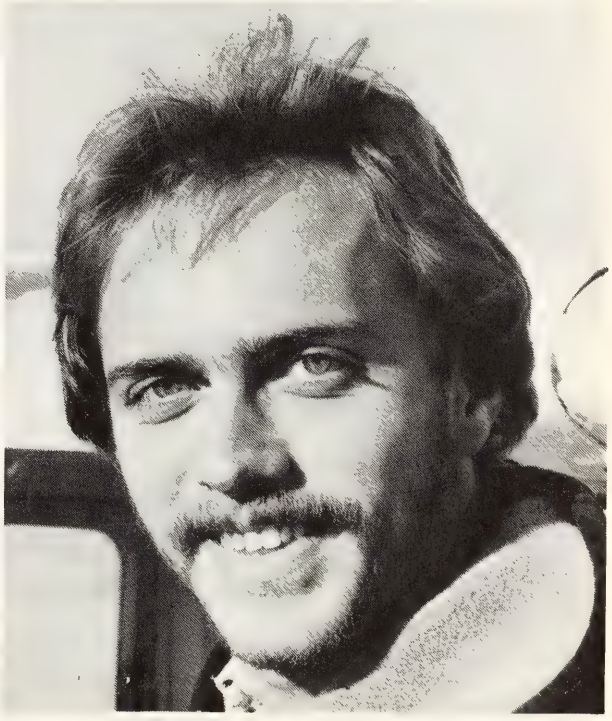
A limited number of applicants who do not meet the University's entrance requirements for four-year programs may be granted admission to the fall semester through two special admissions programs: Basic Skills and Special Supportive Services. All applicants who are not admissible by the above requirements will have their applications reviewed automatically for admission to one of these special programs.

Students seeking admission into the associate degree programs in the School of Technical Careers can qualify for admission any semester if they rank in the upper two-thirds of their graduating class or score a minimum ACT composite score of 15 or higher (SAT 690). Students who do not qualify for admission to the associate degree program under the above requirements may be granted conditional admission for the spring semester, provided the program allows spring admission.

Students seeking admission to dental hygiene, dental laboratory technology, mortuary science and funeral service, nursing, or physical therapist assistant programs must meet university entrance requirements as well as those of the specific programs. All students applying for admission to one of these programs will be sent additional information on admissions from the program supervisor.

Students interested in dental hygiene are required to take the Dental Hygiene Aptitude Test. This examination must be taken in November. All application materials must be filed by January 16, 1981. Students interested in the physical therapist assistant program must submit all application materials before November 7, 1980.

While SAT scores can be used to process an application, all high school



applicants must submit official scores from the ACT (American College Testing) Service.

Procedures

Beginning freshmen who did not send their ACT scores to the University when they wrote the test or who have scored less than a composite of 15 should write to the admissions office and request an application for admission. The application should be completed and given to the student's counselor who should send it to the admissions office along with a copy of the student's transcript. If the application for admission and transcript are submitted together, it will expedite the student's

admission. Students are also required to submit their ACT scores to the admissions office. Once these three records are received, students will be informed of the University's decision.

For Transfer Students

Admission Requirements

Transfer students with an overall *C* average as determined by SIUC grading procedures in all college work and at least 26 semester (39 quarter) hours are eligible for admission any term. Transfer students who have at least a *C* overall average but fewer than 26 semester (39 quarter) hours must also meet freshman requirements.

Transfer students with an associate degree in a baccalaureate-oriented program from a regionally accredited two-year institution may enter regardless of grade point average provided additional work has not been taken since graduation. If additional work has been completed, admission is based on the above requirements.

Transfer students who obtain baccalaureate-oriented associate degrees from regionally accredited institutions will satisfy all general studies requirements and will be granted automatic junior standing.

Evaluation of Credit

After transfer students have been admitted, their transfer work is evaluated in the Records Division of the Office of Admissions and Records. This evaluation covers general degree and General Studies (general education) requirements. Copies of the evaluations are mailed directly to the student and their academic departments. Transferred courses which are not evaluated as General Studies are evaluated by the department directing the specific curriculum.



Capstone Program

If you have an Associate in Applied Science degree (a two-year technical-occupational degree) there is available a range of program options and policies concerning the acceptance of technical credit that can be matched by few institutions in the country today. Through the University's Capstone Program, qualified technical graduates with the A.A.S. degree from a regionally accredited two year institution may enter selected baccalaureate programs in the School of Agriculture, College of Education, College of Human Resources, College of Engineering and Technology, or individually designed programs in the School of Technical Careers, and be guaranteed by contract graduation in two years (60 hours) of additional course work.

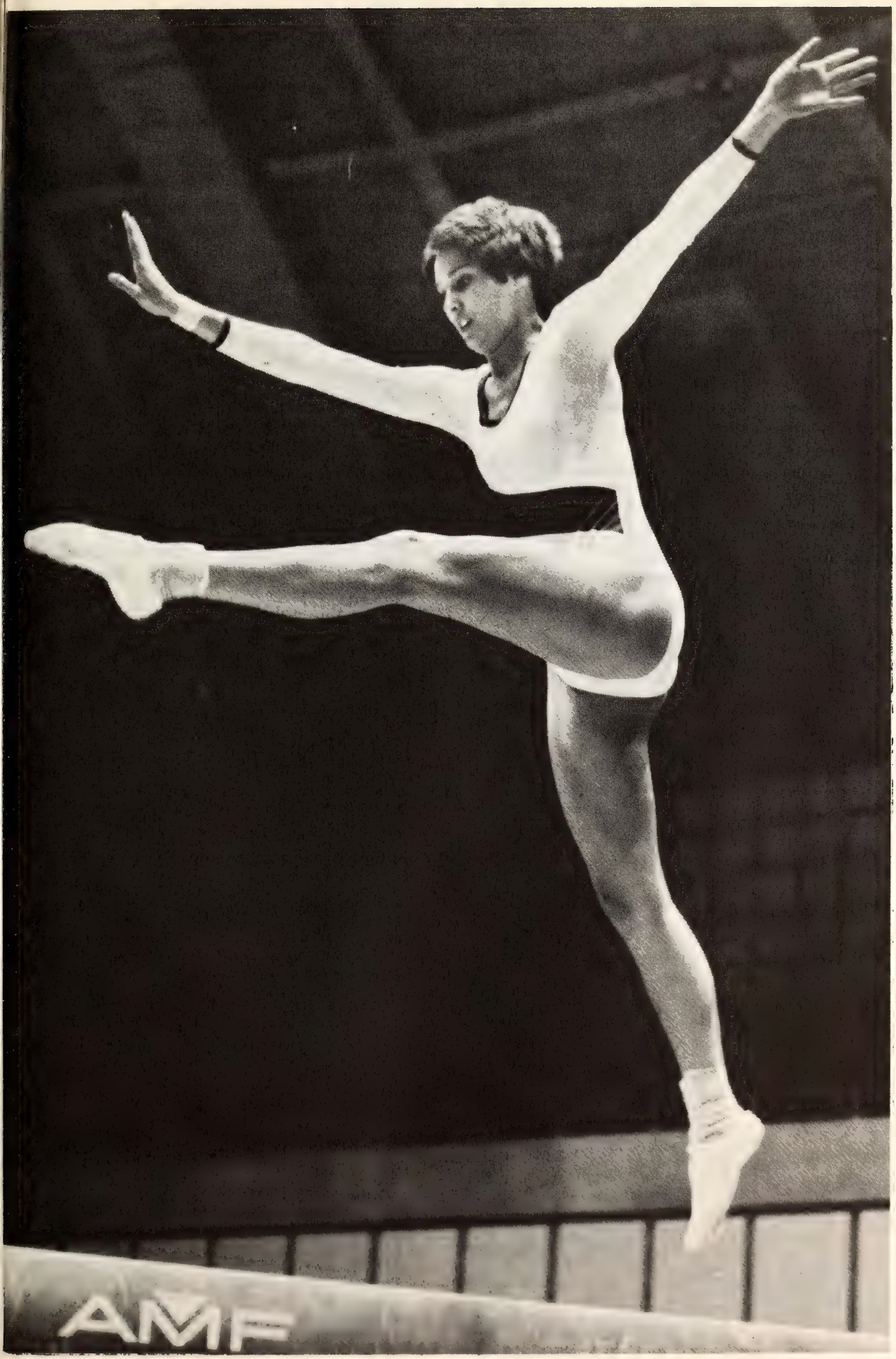
Participants are selected with the aid of community college personnel. Students are expected to have completed an associate degree in an occupational specialty. Also considered are grade point averages, successful work experience in the student's specialty area, success in high school, and references.

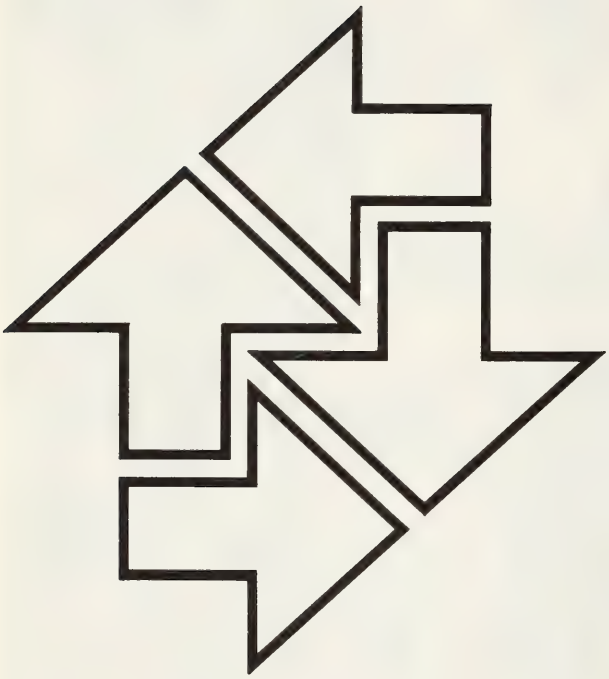
Through the Capstone Program, Southern Illinois University at Carbondale designed a variety of model bachelor's degree programs building directly upon skills gained in community colleges and in the world of work.

For Veterans

Veterans are admitted regardless of their previous academic record provided no additional education has been attempted since separation from active duty, or such credit attempted must amount to *C* average or higher. Previous educational records will determine the scholastic status of entering veterans.

Veterans considering SIUC are encouraged to contact the Office of Veteran Affairs.


AMF



Curriculum Majors

Academic units are in bold print (e.g. Agriculture). Undergraduate majors and minors are listed under each academic unit. Specializations within a major are indented. The asterisk indicates a minor only. All students who have not yet chosen a major will be advised in the Pre-Major Advisement Center in General Academic Programs.

Agriculture

- Agribusiness Economics
- Agricultural Education
- Agricultural Education and Mechanization
- Agriculture, General
  - Country Living
  - Environmental Studies
  - Production Agriculture
- Animal Industries
  - Production
  - Science & Pre-Veterinary Medicine
- Forestry
  - Forest Resources Management
  - Forestry Environmental Assessment
  - Outdoor Recreation Resource Management
  - Forest Science
- Plant & Soil Science
  - Landscape Horticulture
  - Environmental Studies
  - General
  - Business
  - Science

Business and Administration

- Accounting
- Administrative Sciences
  - Management
  - Decision Sciences
- Business and Administration
- Business Economics
- Finance
  - Financial Institutions
  - Financial Management
- Marketing

Communications and Fine Arts

- Art
  - Drawing
  - Painting
  - Printmaking
  - Sculpture
  - Ceramics
  - Metalsmithing
  - Fibers/Weaving
  - Art Education
  - Art History
  - General Studio
- Cinema and Photography
  - Film Production
  - Film History/Theory
  - Fine Arts Photography
  - Professional Photography
  - Cinema and Photography
  - Photojournalism
- Journalism
  - Advertising
  - News-Editorial
  - Photojournalism
- Music
  - Performance
    - Instrumental
    - Keyboard
    - Voice
  - Music Business
  - Music History-Literature
  - Music Theory and Composition
  - Music Education
- Radio-Television
- Speech Communication
  - Communication Arts and Studies
  - Communication Education
  - Oral Interpretation
  - Public Relations
- Speech Pathology and Audiology
  - Clinical
  - Public School

Theater
Acting-Directing
Design-Technical
Playwriting-Dramatic Literature

Education
Agricultural Education
Aquatics*
Art
Athletic Training*
Biological Sciences
Black American Studies*
Botany
Business Education
Secondary
Vocational
Non-Certification
Chemistry
Classics
Coaching*
Dance*
Early Childhood Educ.
K-3
Preschool
Earth Science*
Economics
Educational Media*
Elementary Education
English
French
Geography
German
Health Education
Elementary
Secondary
History
Home Economics Education
Vocational Extension
Special Education Emphasis
Language Arts and Social Studies
Mathematics
Microbiology*
Music Education
Occupational Education
Health Occupations
Industrial Arts
Secondary Teaching
Occupational Teaching
Philosophy*
Physical Education
Physics
Physiology*
Political Science
Psychology*
Recreation
Park and Community Recreation
Outdoor Recreation
Commercial Recreation Management
Therapeutic Recreation
Russian
Social Studies
Sociology*
Spanish
Special Education
Behavioral Disorders
Learning Disabilities
Mental Retardation
Speech Communication
Speech Pathology and Audiology
Theater*
Zoology

Engineering and Technology
Engineering
Engineering Mechanics and Materials
Electrical Sciences and Systems Engineering
Mining Engineering
Thermal and Environmental Engineering
Engineering Technology
Civil
Electrical
Mechanical
Industrial Technology
General
Occupational Alternative
Mining Technology

General Academic Programs
Undecided**
University Studies
Special Major

*Pre-Professional Program***
Nursing

Human Resources
Administration of Justice
Law Enforcement
Juvenile Justice & Delinquency Prevention
Correctional Program Services
Correctional Management
Black American Studies*
Child and Family
Pre-School Programs
Preschool Early Childhood Certification
Clothing and Textiles
Apparel Design
Retailing
Community Development*
Consumer Studies*
Design
Product Design
Urban Planning
Visual Communications
Family Economics & Mgt.
Consumer Services in Business
Family Services Consultant
Food and Nutrition
Dietetics
Food and Lodging Systems Management
Food and Nutrition Science
Interior Design
Social Welfare

Liberal Arts
African Studies*
Anthropology
Asian Studies*
Chinese*
Classical Civilization*
Classics
Comparative Literature*
Computer Science
Business/Management Information Processing
General
Earth Science*
East Asian Civilizations*
Economics
English
General
Creative Writing
Pre-Professional
French
Geography
General
Environmental Studies and Planning
German
Greek*
History
Japanese*
Latin*
Latin American Studies
Linguistics
Theoretical
Applied
Mathematics
Museum Studies*
Philosophy
Political Science
Psychology
Religious Studies
Russian
Sociology
Spanish
Speech Communication
Uncommon Languages*

*Pre-Professional Programs***
Law
Theology

Science
Biological Sciences
Botany
Chemistry
Earth Science*
Engineering Biophysics
Geology
Mathematics
Microbiology
Physics
Physiology
Zoology

*Pre-Professional Programs***
Dentistry
Medicine
Optometry
Pharmacy
Podiatry
Veterinary Science

Technical Careers

Baccalaureate Degree Program (4 years)
Bachelor of Science in Technical Careers

Associate Degree Programs (2 years)

Fall admission only:
Commercial Graphics —Design
Dental Hygiene
Dental Lab. Technology
Physical Therapist Assistant

Major admissions offered only in fall, but student can enter any term to take non-major courses:
Avionics Technology
Airframe
Electronics and Avionics
Architectural Technology
Construction Technology —Building
Electronic Data Processing
Electronics Technology
Mortuary Science and Funeral Service

Admission allowed any semester:
Allied Health Careers
Automotive Technology
Aviation Technology
Commercial Graphics —Production
Correctional Services
Law Enforcement
Nursing
Photographic and Audio-Visual Technology
Technical Photo Lab
Audio-Visual
Secretarial and Office Specialties
Tool and Manufacturing Technology (Numerical Control)

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*Minor only
**Non-Degree Programs

For Your Information

Housing Requirements

All freshmen and sophomores under the age of 21 who do not live with parents or guardians must live in University-owned and operated housing or off-campus University-approved housing. Juniors, seniors, graduates, married students, veterans, or those students over 21 years of age may live where they choose.

Anyone who is admitted to SIUC receives additional information from the Housing Office.

Costs

Tuition and fees for an Illinois resident currently total $471.05 per semester or $942.10 per academic year. This is for a student taking 12 or more hours during a semester.

The out-of-state resident is assessed $1,093.05 per semester ($2,186.10 per academic year) for taking 12 or more hours. Out-of-state students should be aware that they may become eligible to pay in-state tuition and fees if they establish their residency in Illinois.

Board and room in University residence halls is now $896 per semester or $1,792 per academic year. Housing facilities (on campus) for married students include furnished efficiency apartments renting for $157 per month; furnished (one bedroom), $173; furnished (two bedrooms), $187; unfurnished (two bedrooms), $180; and unfurnished (three bedrooms), $184.

To figure what it will cost you to attend SIUC for one academic year, estimate personal spending and living costs and add housing and tuition and fees. We estimate total costs to be $4,000 for Illinois residents, and $5,250 for out-of-state students.

Student Work and Financial Assistance

We explained this earlier, but a couple more notes:

SIUC requires applicants to file the ACT/FFS with BEOG, and ISSC (if Illinois resident) to determine eligibility for all financial assistance.

Additional information from the University's Student Work and Financial Assistance Office is sent routinely to all applicants for admission to SIUC.

Recommended Timetable for Fall 1981

September–October—Apply for admission.
3 weeks later—Admission decision made.
2 weeks later—University housing application mailed to admitted students; return it promptly.
January–March—File ACT–FFS with BEOG, and ISSC applications.
March—University Housing begins issuing contracts; return it promptly with deposit.
Late June–Early August—Appointments issued for advisement and advance registration; summer orientation program offered.
August 20–21—Final registration (for those who did not participate in advance registration). No appointment necessary.
August 21, 9:00 A.M.—Residence halls open.
August 24, 8:00 A.M.—Classes begin.

Assistance Available

Have questions? Want to visit the campus? Need more information? The return postcards in this publication are designed specifically to help you learn more about Southern Illinois University at Carbondale. The School/College Relations Division staff members are available to make your transition to SIUC a smooth one. If you need them, they're in the Office of Admissions and Records in Woody Hall. Correspondence, telephone calls, and visitors are welcome. For assistance:

Office of Admissions and Records
Southern Illinois University at Carbondale
Carbondale, Illinois 62901
Telephone 618-453-4381
Toll free (Illinois residents only) to the Office of Admissions and Records, dial 800-642-3531.

Campus Visit Request

SIUC encourages individual visits to the campus. We also offer the following guest days for Saturday travelers, group visits, and all other interested visitors:

July 18 & 25, 1980	Senior Days
November 8, 1980	High School Guest Day
February 7, 1981	Transfer Guest Day
April 4, 1981	Guest Day
July 17 & 24, 1981	Senior Days

I plan to visit your campus on

_____

date(s)—Monday–Friday, except guest days.

_____

time—(8:00 A.M.–4:30 P.M.)

I would like information on lodging while in Carbondale
☐ Yes ☐ No

_____

☐ MR. ☐ MS. NAME

_____

ADDRESS

_____

CITY

_____

STATE ZIP

Information Request

Please Send

☐ Application for admission

☐ Information on my intended major which is

_____

_____

See pages 34 and 35.

☐ Other

_____

_____

(Please Print)

_____

☐ MR. ☐ MS. NAME

_____

ADDRESS

_____

CITY

_____

STATE

_____

ZIP

SIU

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IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY CARD

FIRST CLASS PERMIT NO. 81, CARBONDALE, ILLINOIS 62901

POSTAGE WILL BE PAID BY ADDRESSEE

Office of Admissions and Records
Southern Illinois University
at Carbondale
Carbondale, Illinois 62901

SIU

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POSTAGE WILL BE PAID BY ADDRESSEE

Office of Admissions and Records
Southern Illinois University
at Carbondale
Carbondale, Illinois 62901

University Calendar

Fall Semester, 1980

Semester classes begin	Monday, August 25, 8:00 A.M.
Labor Day holiday	Monday, September 1
Thanksgiving vacation	Saturday, November 22, 12:00 NOON— Monday, December 1, 8:00 A.M.
Final examinations	Monday, December 15—Friday, December 19

Spring Semester, 1981

Semester classes begin	Monday, January 19, 8:00 A.M.
Lincoln's Birthday holiday	Thursday, February 12
Spring vacation	Saturday, March 14, 12 NOON– Monday, March 23, 8:00 A.M.
Final examinations	Monday, May 11–Friday, May 15
Commencement	Saturday, May 16

Summer Session, 1981

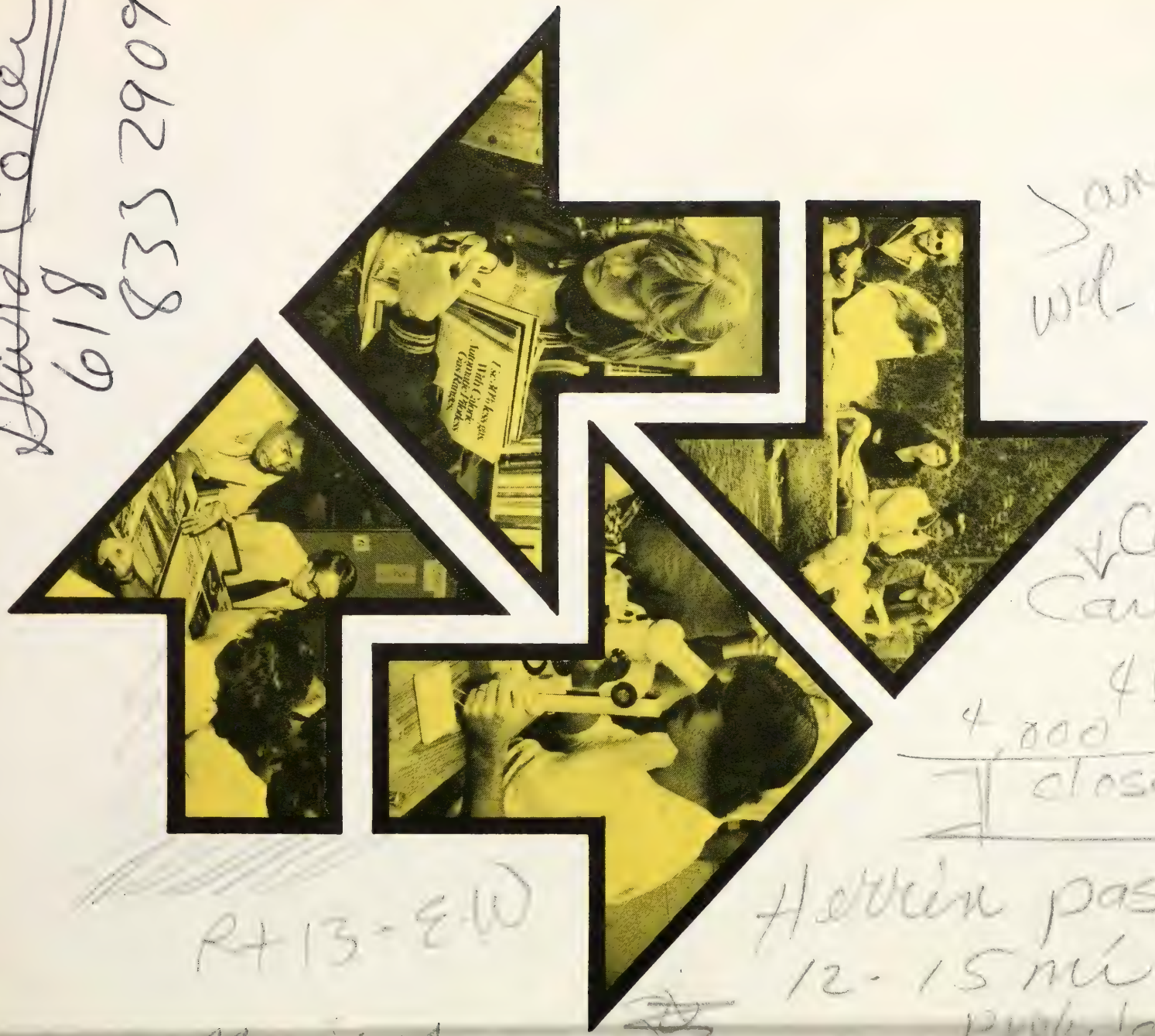
Eight-week session begins	Monday, June 15, 7:30 A.M.
Independence Day holiday	Friday, July 3
Final examinations	Thursday and Friday, August 6–7
Commencement	Saturday, August 8

Fall Semester, 1981

Semester classes begin	Monday, August 24, 8:00 A.M.
Labor Day holiday	Monday, September 7
Thanksgiving vacation	Saturday, November 21, 12:00 NOON Monday, November 30, 8:00 A.M.
Final examinations	Monday, December 14–Friday, December 18

80023 65M 6/80

David Coleman
618 833 2909



Jane Lockerman
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1-71

schools
↓Cambria-tiny
Carterville-Eop
4 en 5 Hy Jordan
4,000
close Crab Orch Lake

R 13-E-W

Herrin past Carterville
12-15 mi. nice
Pyle, Jerson Morrison

Southern Illinois University at Carbondale Bulletin

22.2

1981-82 Counselor's Advisement Catalog





Southern Illinois University at Carbondale Bulletin

1981-82 Counselor's Advisement Catalog

Southern Illinois University at Carbondale Bulletin (USPS 506-080)

Volume 22, Number 2, July 1980

Second-class postage paid at Carbondale, Illinois 62901. Published by Southern Illinois University at Carbondale, Carbondale, Illinois 62901, six times per year, in June, July, August, September, October, and November.

Southern Illinois University at Carbondale is an Equal Opportunity/ Affirmative Action institution in accordance with Civil Rights legislation and does not discriminate on the basis of race, religion, national origin, sex, age, handicap or other factors prohibited by law in any of its educational programs, activities, admissions or employment practices. Concerns regarding this policy should be referred to the Affirmative Action Office, Southern Illinois University at Carbondale, Anthony Hall, Room 104, telephone 536-6618.

SUGGESTIONS FOR USE
COUNSELORS ADVISEMENT CATALOG

There are a number of new features in this issue of the Counselors Advisement Catalog, which we hope will make it even more responsive to your needs as counseling professionals. Those of you who have used this publication for years as well as those of you seeing it for the first time should take a minute to thumb through the book, and note the following changes:

1) Text Rearranged and Reduced. We've tried to put our space to its optimum use, trimming the fat and rendering it more efficient.

2) STC Merged Alphabetically. All majors and pre-professional programs are now listed alphabetically. The School of Technical Careers no longer is kept separate. The index has also been modified to reflect variations in program titles (i.e. Wildlife Management is referenced to Zoology).

3) Representative First Job Titles. The SIUC Career Planning and Placement Center has supplied us with representative titles of jobs held by recent graduates of SIUC. We omitted listings for majors in the College of Education, figuring they'd be self-explanatory.

4) Recommended Programs. Since this book is intended for both high school and community college counselors, we've had to compromise a bit on the recommended programs. For community college students, we wanted to convey the type of courses they should have in their background before coming to SIUC, and the type of courses, in some instances, they should steer clear of until they enter SIUC. The recommended program lists those courses which should ensure the smoothest transition. Students who begin as freshmen at SIUC may encounter modifications in this sequence.

5) Small Changes Are The Most Important. We've made every attempt to present the most current information on policies, procedures, and course requirements. For this reason, PLEASE DISCARD ALL PREVIOUS ISSUES of the Counselors Advisement Catalog.

We would like to supply each counselor on your staff with a personal copy of the 1981-82 Counselors Advisement Catalog. Just let us know how many additional copies are required, by contacting School/College Relations Division, Office of Admissions and Records, SIUC, Carbondale, Illinois 62901.

I am already mulling over ideas for the 1982-83 edition, and would welcome any suggestions or comments from you for adapting it to your needs.

Catherine Foster Walsh, Editor

OFFICE OF ADMISSIONS AND RECORDS
SOUTHERN ILLINOIS UNIVERSITY AT CARBONDALE
CARBONDALE, ILLINOIS 62901

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UNIVERSITY CALENDAR

Fall Semester 1980

Semester Classes Begin	Monday, August 25, 8:00 a.m.
Labor Day Holiday	Monday, September 1
Thanksgiving Vacation	Saturday, November 22, 12:00 noon--Monday, December 1, 8:00 a.m.
Final Examinations	Monday, December 15--Friday, December 19

Spring Semester 1981

Semester Classes Begin	Monday, January 19, 8:00 a.m.
Lincoln's Birthday Holiday	Thursday, February 12
Spring Vacation	Saturday, March 14, 12 noon--Monday, March 23, 8:00 a.m.
Final Examinations	Monday, May 11--Friday, May 15
Commencement	Saturday, May 16

Summer Session 1981

Semester Classes Begin	Monday, June 15, 7:30 a.m.
Independence Day Holiday	Friday, July 3
Final Examinations	Thursday and Friday, August 6-7
Commencement	Saturday, August 8

Fall Semester 1981

Semester Classes Begin	Monday, August 24, 8:00 a.m.
Labor Day Holiday	Monday, September 7
Thanksgiving Vacation	Saturday, 12:00 noon--Monday, 8:00 a.m., November 21-30
Final Examinations	Monday--Friday, December 14-18

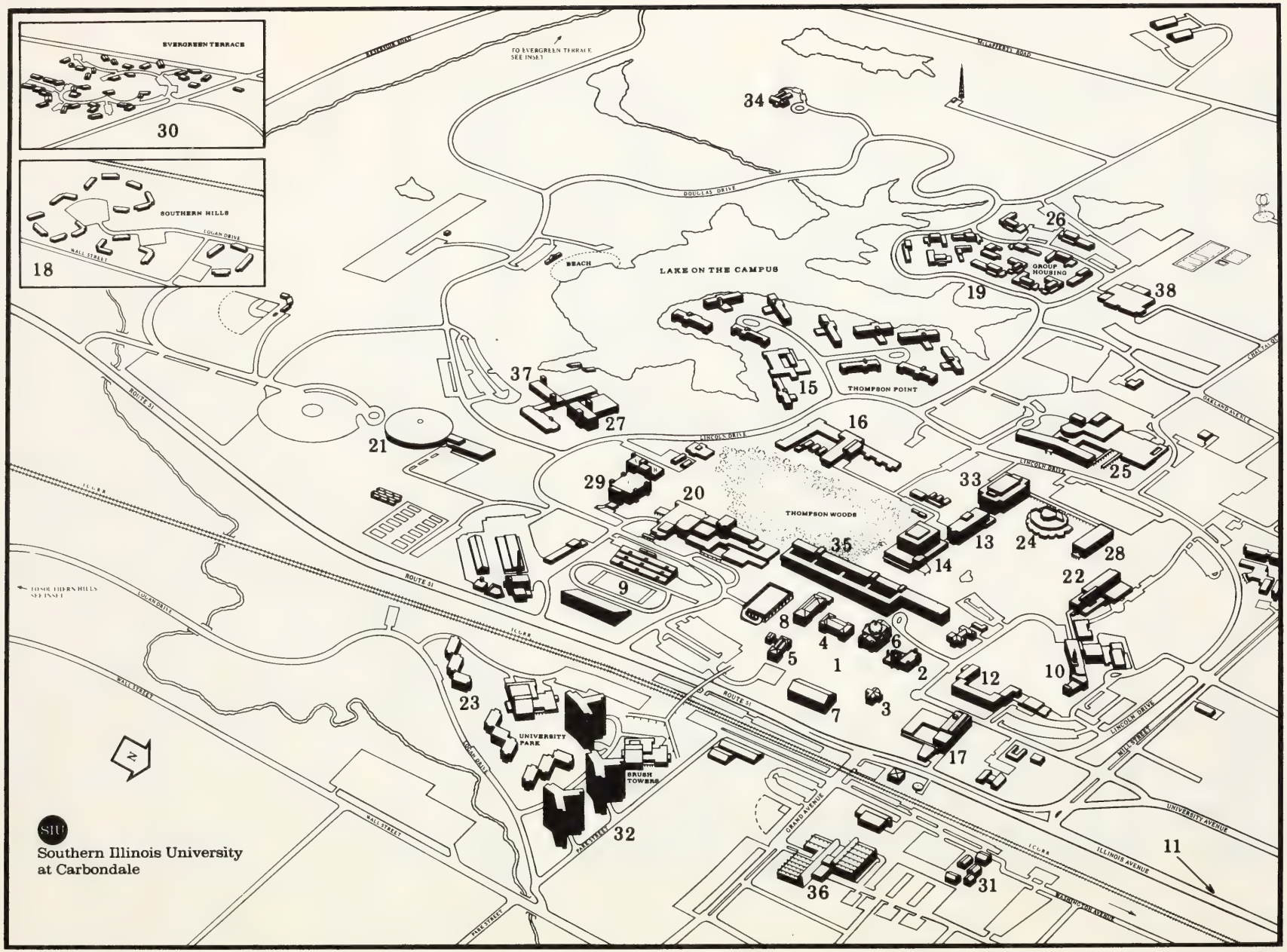
Spring Semester 1982

Semester Classes Begin	Monday, January 18, 8:00 a.m.
Lincoln's Birthday Holiday	Friday, February 12
Spring Vacation	Saturday, 12:00 noon--Monday, 8:00 a.m. March 13-22
Final Examinations	Monday--Friday, May 10-14
Commencement	Saturday, May 15

Admissions' Guest Days

SIUC encourages individual visits to the campus. We also offer the following guest days for Saturday travelers, group visits, and all other interested visitors.

November 8, 1980	High School Guest Day
February 7, 1981	Transfer Guest Day
April 4, 1981	Guest Day
July 17 and 24, 1981	Senior Days


EVERGREEN TERRACE
30
SOUTHERN HILLS
LOGAN DRIVE
WALL STREET
18
TO EVERGREEN TERRACE SEE INSET
TO SOUTHERN HILLS SEE INSET
BEACH
LAKE ON THE CAMPUS
THOMPSON POINT
THOMPSON WOODS
GROUP HOUSING
DOUGLAS DRIVE
MORRIS LIBRARY ROAD
LINCOLN DRIVE
OAKLAND AVENUE
ROUTE 51
ILLINOIS AVENUE
UNIVERSITY AVENUE
WASHINGTON AVENUE
GRAND AVENUE
MILL STREET
PARK STREET
UNIVERSITY PARK
BRUSH TOWERS
N
SIU
Southern Illinois University
at Carbondale

LEGEND

Old Campus

1. Old Main Site
2. Altgeld Hall (1896)
3. Wheeler Hall (1904)
4. Allyn Building (1908)
5. Anthony Hall (1913)
6. Shryock Auditorium (1918)
7. Davies Gymnasium (1925)
8. Parkinson Laboratory (1928)
9. McAndrew Stadium (1938)

New Campus

10. Pulliam Hall (1951)
11. School of Technical Careers (1951)
12. Woody Hall (1953)
13. Lindegren Hall (1953)
14. Morris Library (1956)
15. Thompson Point Residence Halls (1957)
16. Agriculture Building (1957)
17. Quigley Hall (1959)
18. Southern Hills Family Housing (1960)
19. Small Group Housing (1960)
20. Student Center (1961)
21. SIU Arena (1964)
22. Wham Education Building (1964)
23. University Park Residence Halls (1965)
24. Lawson Hall (1965)
25. Communications Building (1966)
26. Health Service (1966)
27. Technology Buildings (1966)
28. General Classroom Building (1967)
29. James W. Neckers Building (1968)
30. Evergreen Terrace Family Housing (1968)
31. Washington Square (1967)
32. Brush Towers Residence Halls (1968)
33. Life Science II (1971)
34. President's Home (1971)
35. Faner Building (1973)
36. Student Recreation Center (1977)
37. School of Technical Careers Building (1978)
38. School of Law Building (1981)

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College of Liberal Arts 35
School of Medicine 13
College of Science 29
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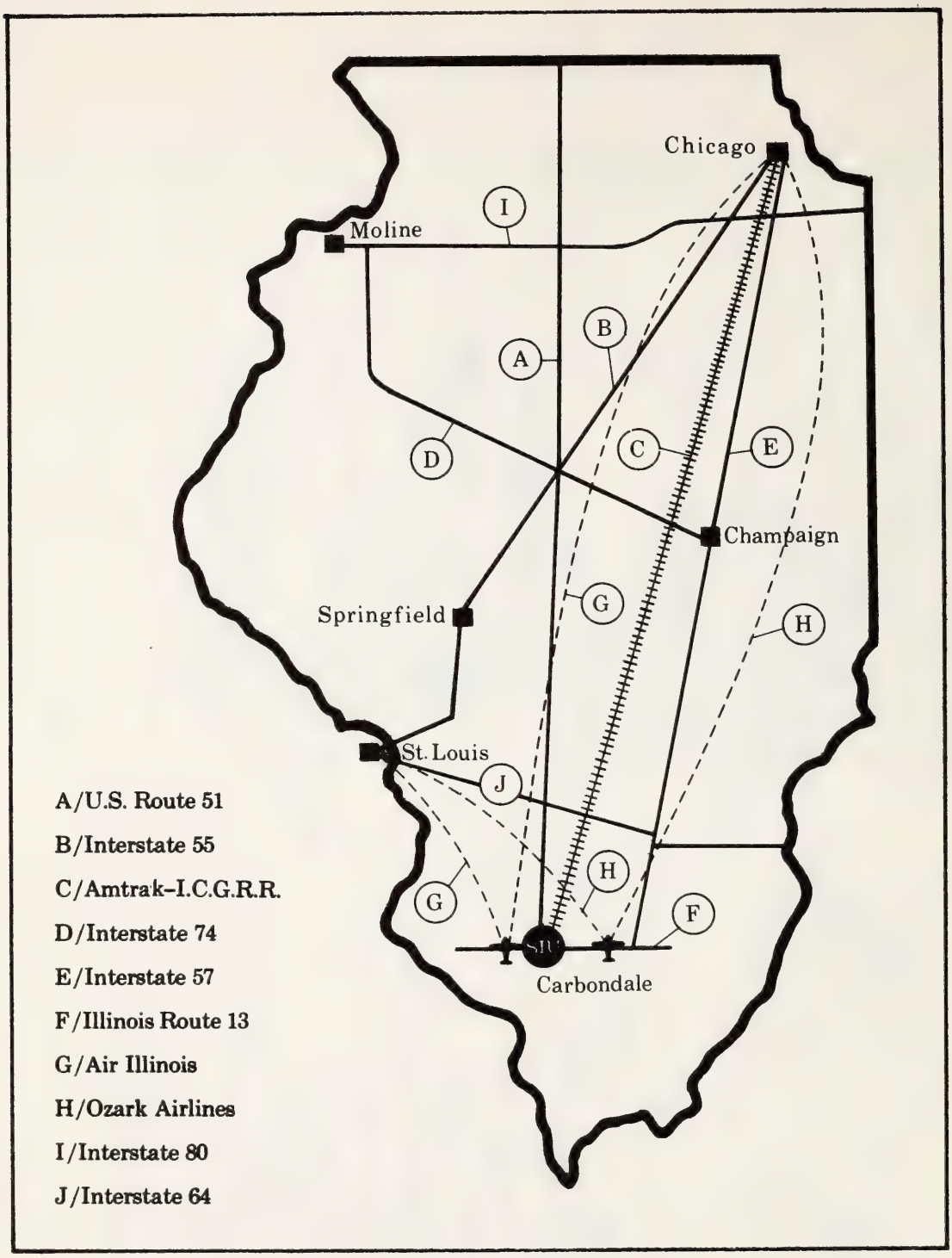
Offices

Anthony Hall 5
- President's Offices

Woody Hall 12
- Admissions and Records (Admission)
- Bursar's Office (Fee Payment)
- Cafeteria
- Career Planning and Placement Center
- Counseling Center
- General Academic Programs
- Graduate Studies and Research
- International Education
- Student Services
- Student Work and Financial Assistance
- Testing Office

Student Center 20
- Book Store
- Cafeteria
- Information Desk

Washington Square 31
- Housing Business Services
- Parking Division



CAMPUS

The original eight-building campus with its Gothic architectural tradition is now completely surrounded by a sprawling modern 866-acre campus with a maze of paths, impressive buildings, and attractive residence halls. Even though the original campus still serves as a focal point of study and university tradition, the prevailing design of the 430-building campus now is contemporary. Facilities vary in style, size, and purpose from a circular 10,000-seat arena, to an eight-sided multimedia instruction center, 17-story high-rise residence halls, and a permanent beach house on the 40-acre spring-fed campus lake.

Being teaching and research oriented, the University provides a balance of laboratories and classrooms which serve as satellites to the impressive 7-story Morris Library containing over 1.6 million volumes and subscribing to over 11,000 current periodicals.

Additional facilities include the School of Technical Careers some ten miles east, the Southern Illinois Airport three miles west, laboratories at Little Grassy Lake, and University Farms.

UNIVERSITY DIRECTORY

Listed below are the various offices, schools and colleges which are available to aid counselors, prospective students, and parents in answering questions which may not be within the scope of the various university publications. Please feel free to direct inquiries to the appropriate areas.

The general university telephone number is (618) 453-2121. The mailing address is Southern Illinois University at Carbondale, Carbondale, Illinois 62901.

OFFICES

SIUC (University Switchboard)	(618) 453-2121
Admissions and Records (applications, registration) (Illinois residents call toll free 800-642-3531)	(618) 453-4381
Aerospace Studies (AF-ROTC)	(618) 453-2481
Airport, Southern Illinois	(618) 529-2681
Army Military Science (Army ROTC)	(618) 453-5786
Athletics, Intercollegiate for Men	(618) 453-5311
Athletics, Intercollegiate for Women	(618) 536-5566
Athletics, Tickets	(618) 453-5319
Bursar (payment of fees)	(618) 453-2221
Central Ticket Office	(618) 536-3351
Counseling Center	(618) 453-5371
Health Service	(618) 453-3311
School/College Relations	(618) 453-4381
Housing Business Services (on-campus housing)	(618) 453-2301
Housing Information Services (off-campus housing)	(618) 453-2301
International Education	(618) 453-5774
Parking Division	(618) 453-5369
Specialized Student Services (Handicapped)	(618) 453-5738
Student Development	(618) 453-5714
Student Life	(618) 536-2338
Student Services	(618) 453-2374
Student Work and Financial Assistance	(618) 453-4334
Testing Center (CLEP, Placement/Proficiency, ACT Residual)	(618) 536-3303
University Graphics	(618) 536-3325
University Honors	(618) 453-2824
University Ombudsperson	(618) 453-2411

SCHOOLS AND COLLEGES

Agriculture, School of (Agriculture Building)	(618) 453-2469
Business and Administration, College of (General Classroom Building)	(618) 453-3328
Communications and Fine Arts, College of (Communications Building)	(618) 453-4308
Education, College of (Wham Education Building)	(618) 453-2415
Engineering and Technology, College of (Technology Building)	(618) 453-4321
General Academic Programs (Woody Hall)	(618) 536-5506
Graduate Studies and Research (Woody Hall)	(618) 536-7791
Human Resources, College of	(618) 453-2251
Law, School of	(618) 536-7711
Liberal Arts, College of (General Classroom Building)	(618) 453-2466
Medicine, School of	(618) 536-5511
Science, College of (Neckers Building)	(618) 536-6666
School of Technical Careers	(618) 536-6682

GENERAL INFORMATION

THE SOUTHERN ILLINOIS UNIVERSITY SYSTEM

The Southern Illinois University System is a senior, public university system comprised of two diverse institutions, Southern Illinois University at Carbondale and Southern Illinois University at Edwardsville, serving approximately 33,000 students. One of the nation's largest, The Southern Illinois University System had its beginnings in Carbondale and was chartered in 1869 as Southern Illinois Normal University. In 1949 Southern Illinois University began offering off-campus academic courses in the Metropolitan East St. Louis area, and this initiative led to the eventual development of a separate, distinctive institution in Edwardsville.

The mission and scope of The Southern Illinois University System is highly complex and emphasizes a commitment to quality education. As The Southern Illinois University System has grown and flourished, its constituent Universities have developed programs of instruction, research, and public service which have attracted and served students, faculty, and staff not only from the region but from throughout the State of Illinois and the nation, and from overseas as well.

The Universities within The Southern Illinois University System offer a broad range of academic programs at the associate, baccalaureate, master's, doctoral, and professional degree levels. In addition to the many undergraduate degree programs offered, the constituent Universities support over sixty academic programs which lead to the master's degree, and twenty-two programs which lead to the doctorate. The professional schools are designed to provide quality health and legal personnel and services to the people of the State of Illinois. Southern Illinois University at Edwardsville operates a School of Nursing in Edwardsville and a School of Dental Medicine in Alton, and Southern Illinois University at Carbondale has a School of Law in Carbondale and a School of Medicine headquartered in Springfield. Of the 33,000 students currently enrolled, more than 6,000 are enrolled in graduate and professional programs.

The instruction, research, and service missions of the two constituent Universities reflect the needs of the geographic areas in which they are located. The System is also committed to serving Statewide, national, and international needs. This commitment is reflected throughout the State and the nation. Its presence is also felt in countries other than the United States through research and training exchanges and through worldwide student exchange programs.

The Southern Illinois University System is governed by a nine-member Board of Trustees which sets policy that enables the institutions to carry out established missions and goals. The Chancellor of The Southern Illinois University System is the chief executive officer of the System and is the primary link between the Universities and the Board of Trustees. The University Presidents report directly to the Chancellor and are responsible for the internal operations of the respective institutions.

ENVIRONMENT

Community: Carbondale, Illinois (pop. 26,900)
Location in State: Southern Illinois (Jackson County)
Miles from: St. Louis, 110; Chicago, 330; New York, 960; San Francisco, 2,140.
Terrain: Slightly rolling (elevation 400-500 feet).
Climate: Pleasant and mild year-round temperature, mean annual temperature 57.8 degrees.
Area: Historical "Little Egypt," year-round outdoor recreation, four scenic large lakes, national forest and game refuge.
Transportation: Major train, plane, and bus routes: Amtrak Rail System; Ozark, Air Illinois airlines; Gulf Transport bus line; highway routes Interstate 57, US 51, Illinois I3.

UNIVERSITY

Name: Southern Illinois University at Carbondale
Founded: 1869
Acting President: Hiram Lesar
Campus Location: Southwest corner of the community
University telephone number: 618-453-2121
Type: Public state university of the Southern Illinois University System
Student Body: Co-ed
Curriculum: Undergraduate, graduate, and professional
Calendar: Early semester (Fall and Spring), Summer session
Campuses: Carbondale, School of Technical Careers, Carterville Campus, Southern Illinois Airport; outdoor laboratories; university farms
Acreage: 7,254; on-campus 974 acres
Campus Buildings: 383
Colors: Maroon and white
Mascot: Saluki (Egyptian hunting dog)

STUDENT DATA

Enrollment, Fall 1979: 22,695
Undergraduate, 19,035; graduate, 3,186; Professional 474
Men, 14,079; Women, 8,616
Residency: Illinois 19,356 (85%); out-of-state 2,384 (11%); 89 other countries, 955 (4%)

PERSONNEL, 1979

Percentage full-time faculty with doctorate: 78%
Undergraduate students/faculty who teach at undergraduate level ratio: 15:1

DEGREES

Undergraduate: Associate: A.A., A.A.S.; Baccalaureate: B.A., B.S., B. Mus. Ed., B.
Graduate: M.Acc., M.A., M.B.A., M.F.A., M. Mus., M. Mus. Ed., M.P.A., M.S., M.S. Ed.; Specialist Degree (6 yr.); Ph.D., Rh.D., D.B.A., M.D., J.D.

ACCREDITATIONS AND AFFILIATIONS

North Central Association of Colleges and Secondary Schools
National Council for Accreditation of Teacher Education
Accreditation Board for Engineering and Technology
Accrediting Council of the American Assembly of Collegiate Schools of Business (undergraduate and master's level programs)
American Association for Accreditation of Laboratory Animal Care
American Association of Museums (University Museum and Art Galleries)
American Bar Association (provisional accreditation)
Commission of Schools of American Board of Funeral Service Education (Mortuary Science program)
American Chemical Society
American Council on Education for Journalism
Commission of Accreditation of Dental and Dental Auxiliary Educational Programs of the American Dental Association (Dental Hygiene and Dental Laboratory Technology programs)
Commission on Accreditation of Rehabilitation Facilities (Vocational development program)
American Dietetic Association (programs meet standards for traditional baccalaureate programs in field of nutrition or dietetics)
American Institute of Architects (Architectural Technology program)
American Medical Association and American Association of Medical Colleges
American Physical Therapy Association (Physical Therapist Assistant program)
American Psychological Association (Counseling psychology and clinical training program)
American Speech and Hearing Association by American Board of Examiners in Speech and Hearing
Council on Rehabilitation Education (Rehabilitation Counseling program)
Council on Social Work Education
Federal Aviation Administration (Aviation Technology program)
Foundation for Interior Design Education Research
Illinois Office of Education
    Superintendent of Education
        State Teacher Certification Board
    State Board of Education
        Vocational Home Economics Programs
        State Plan for Administration of Vocational and Technical Education in Illinois
Illinois Department of Registration and Education (Associate Degree Nursing program)
National Association of Industrial Technology (B.S. program in Industrial Technology)
National Association of Schools of Music
Society of American Foresters
National Shorthand Reporters Association (court reporter training program)
Association of University Programs in Health Administration (Health Care Services option of B.S. degree in Technical Careers)

UNDERGRADUATE CURRICULA AND COURSES

The undergraduate fields of study offered by Southern Illinois University at Carbondale follow in alphabetical order rather than by college or school. Unless otherwise noted, the curriculum in each field listed below leads to a bachelor's degree. Associate degree curricula are marked with an asterisk. Specializations within fields of study are included in listings of recommended two year programs.

Accounting
Administration of Justice
Administrative Sciences
African Studies[1]
Agribusiness Economics
Agricultural Education
Agricultural Education & Mechanization
Agriculture, General
Allied Health Career Specialties*
Animal Industries
Anthropology
Aquatics[1,5]
Architectural Technology*
Art
Asian Studies[1,6]
Athletic Training[1,5]
Automotive Technology*
Aviation Technology*
Avionics Technology*
Biological Sciences
Black American Studies[1,6]
Botany
Business and Administration
Business Economics
Business Education
Chemistry
Child and Family
Chinese[1,3]
Cinema and Photography
Classical Civilization[1,3]
Classics
Clothing and Textiles
Coaching[1,5]
Commercial Graphics - Design*
Commercial Graphics - Production*
Community Development[1]
Comparative Literature[1,6]
Computer Science
Construction Technology - Building*
Construction Technology - Civil*
Consumer Studies[1,4]
Correctional Services*
Dance[1,5]
Dental Hygiene*
Dental Laboratory Technology*
Design
Early Childhood Education
Earth Science[1]
East Asian Civilizations[1,3]
Economics
Educational Media[1]
Electronic Data Processing*
Electronics Technology*
Elementary Education
Engineering
Engineering Biophysics
Engineering Technology
English
Family Economics and Management
Finance
Food and Nutrition
Forestry
French
Geography
Geology
German[1,3]
Greek[1,3]
Health Education
History
Home Economics Education
Industrial Technology
Interior Design
Japanese[1,3]
Journalism
Language Arts and Social Studies
Latin[1,3] Latin American Studies
Law Enforcement*
Linguistics
Marketing
Mathematics
Microbiology
Mortuary Science and Funeral Services*
Museum Studies[1]
Music
Nursing*
Occupational Education
Philosophy
Photographic and Audio-Visual Technology*
Physical Education for Men
Physical Education for Women
Physical Therapist Assistant*
Physics
Physiology
Plant and Soil Science
Political Science
Psychology
Radio-Television
Recreation
Religious Studies
Russian
Secretarial and Office Specialities*
Social Studies
Social Welfare
Sociology
Spanish
Special Major
Special Education
Speech Communication
Speech Pathology and Audiology
Technical Careers
Theater
Tool and Manufacturing Technology (Numerical Control)*[1,2]
Uncommon Languages[1,2]
University Studies
Zoology

Pre-Professional Programs[7]

Dentistry
Law
Medicine
Nursing
Osteopathy
Optometry
Pharmacy
Podiatry
Theology
Veterinary Science

[1]Minor only.
[2]Described under Linguistics.
[3]Described under Foreign Languages.
[4]Described under Family Economics and Management.
[5]Described under Physical Education.
[6]A special major may be developed in this field of study.
[7]Preparatory to applying to professional schools. These are non-degree programs.
*Associate degree curriculum.

APPLICATION REQUEST: ADMISSION PROCEDURES

To request application materials for admission, write to the:
Office of Admissions and Records
Southern Illinois University at Carbondale
Carbondale, Illinois 62901
or call toll free (Illinois residents) 800-642-3531. Direct call (618) 4534381.

Counselors may request application packets in small quantities. Rolling admissions process: NO DEADLINE. APPLICATION FEE: NONE.

ACT/APP

Beginning freshmen can simplify their admission to SIUC by indicating at the time they write the American College Test (ACT) that their test scores should be sent to Southern Illinois University at Carbondale (college code 1144). Students who take the ACT during one of five national test dates and send their scores to us do not have to initiate the application for admission. Once we are in receipt of a student's test scores, we will contact that student automatically. Students who score 18 or higher on the ACT will receive a preprinted application called ACT/APP. To finalize admission, the ACT/APP must be returned to us along with an official copy of the student's transcript.

Students who have sent ACT scores of less than 18 but greater than 14 will be sent a special application for admission. This document must be completed and returned to the Admissions Office with a copy of the student's transcript. Students with test scores less than 15 must submit a regular application for admission.

All students who do not send ACT scores as a result of the national test dates must apply through the traditional application for admission process. (Details described below.)

REQUIRED MATERIALS AND PROCEDURES

HIGH SCHOOL APPLICANTS

Freshman may be considered for admission any time following their sixth semester in high school. Prospective high school students should submit:

1. Completed and signed application forms or ACT/APP.
2. Two copies of the high school transcript signed with school seal, class rank, and if available, ACT scores.
3. Official ACT scores (from Iowa City).

G.E.D. APPLICANTS

Eligible G.E.D. applicants will be considered for admission upon submission of the following materials.

1. Completed and signed application forms.
2. High school transcript.
3. Official G.E.D. results.
4. Official ACT scores (required of students less than 21 years of age).

NOTE: Students who did not request the results of the ACT examination be sent to SIUC (code 1144) at the time they registered for the exam must request that supplemental scores be sent to SIUC by contacting ACT, P.O. Box 451, Iowa City, Iowa 52240.

TRANSFER STUDENTS

Transfer students may be considered for admission as early as one year in advance of their intended enrollment at SIUC or as late as the beginning of each semester. Transfer students who will have at least 26 semester hours or 39 quarter hours prior to entering SIUC will be considered for admission upon submission of the following materials:

1. Completed and signed application forms.
2. Official transcripts from each institution attended after high school.
3. Work in progress form.

Transfer students who will have less than 26 semester or 39 quarter hours prior to entering SIUC will be considered for admission by providing:

1. Completed and signed application forms.
2. Official transcript from each institution attended after high school.
3. Work in progress form.
4. High school transcript (2 copies).
5. Official ACT scores.

All students transferring from a non-regionally accredited institution must also submit a high school record and ACT scores regardless of hours completed, degrees earned, or grade point average. All students who are required to submit a high school record but who did not graduate should submit results of the G.E.D. examination and their incomplete high school record.

The School/College Relations Division of the Admissions and Records Office assists schools by providing representatives for college day and night programs, counseling prospective students, visiting schools on request, distributing university materials, and providing general assistance to counselors. Counselors should feel free to contact members of this staff any time when information or materials are needed.

School/College Relations Division
Office of Admissions and Records
Southern Illinois University
Carbondale, Illinois 62901
Phone: 618-453-4381
Toll Free (Illinois Residents) 800-642-3531

Thomas McGinnis	Director
George Mandis	Counselor
Debbie Perry	Counselor
Cathy Walsh	Counselor
Ben Barron (Chicago Area)	Counselor
Joel Berrey (Veterans)	Counselor
Harriet Wilson	Counselor

ADMISSION POLICIES, REQUIREMENTS

ADMISSION OF FRESHMEN

To be eligible for admission, applicants must be graduates of recognized high schools. Graduates of non-recognized high schools may be admitted to the University by completing successfully the General Educational Development Test or an entrance examination. Persons who have not completed high school may also qualify for admission by completing the GED test provided they meet the requirements to write this examination.

All admissions granted students while in high school are subject to the completion of high school work and graduation.

Students entering the University as freshmen are enrolled in the schools or colleges within the University that offer the academic programs they indicate they plan to pursue. Students who are undecided as to the course of study they want to follow are enrolled in General Academic Programs, pre-major advisement or selected other academic units.

ACCELERATED LEARNING PROGRAM FOR HONORS AND ADMISSIONS (ALPHA)

Exceptionally capable high school students who (a) have completed their junior year, (b) are recommended by the high school principals or guidance counselor, and (c) are approved by the director of admissions of the University will be permitted to enroll for University courses to be taken concurrently with their senior year of high school work. Such students will also be permitted to enroll for University courses offered during the summer session between their junior and senior years of high school, without being concurrently enrolled in the secondary school. Enrollment during the summer for students participating in the ALPHAprogram is limited to eight semester hours.

It is expected that high school principals will judge each case on its individual merits, and that in making their selections and recommendations they will consider such things as:

(a) the rank held by the students in their high school classes;
(b) the results of any standardized test which the students may have taken;
(c) the opinion of the students' teachers regarding their aptitude for college level work;
(d) the opinion of the students' teachers regarding the students' having attained sufficient maturity to adjust to the social and emotional interactions involved.

Since the ALPHA Program was developed to offer the opportunity for enrichment and for acceleration of college-level courses, students are expected not to duplicate those courses offered by the high school. In their letters of recommendation, principals and guidance counselors may recommend specific classes. Every attempt will be made to follow these recommendations, provided the student meets any prerequisites for the courses.

ADMISSION OF FRESHMEN TO BACCALAUREATE PROGRAMS

Applicants seeking admission to a baccalaureate program who have an ACT composite score of 18 or higher (SAT 770) are eligible for admission any semester. In addition, high school graduates who rank in the upper half of their graduating classes and who score a minimum ACT composite of 15 or higher (SAT 690) are also eligible for admission any semester.

High school graduates who rank in the upper two thirds of their graduating class or who earn a minimum ACT composite score of 15 or higher (SAT 690) are admissible for the spring semester on a conditional basis. The conditions are that the student must enroll for a minimum of 12 semester hours and complete at least 10 semester hours of graded work with a minimum overall "C" average. Students who do not meet the conditions of probationary admission will be suspended and will not be considered for re-admission for one academic year.

Students who have been admitted or who qualify to be admitted on a conditional basis may earn transfer credit at another college or university prior to their spring semester at SIUC. However, to maintain their eligibility for spring enrollment, students must earn an overall "C" average in all work attempted.

A limited number of applicants who do not meet the University's entrance requirements may be granted admission to the fall semester through two special admission programs, Basic Skills and Special Supportive Services. All applicants who are not admissible by the above requirements will have their applications reviewed automatically for admission to one of these special programs.

ADMISSION OF FRESHMEN TO ASSOCIATE DEGREE PROGRAMS

Students seeking admission into the associate degree programs in the School of Technical Careers can qualify for admission any semester if they rank in the upper two thirds of their graduating class or score a minimum ACT composite score of 15 or higher (SAT 690). Students who do not qualify for admission to the associate degree programs under the above requirements may be granted conditional admission for the spring semester, provided those programs are available in spring.

Students seeking admission to Dental Hygiene, Dental Laboratory Technology, Mortuary Science and Funeral Service, Nursing or Physical Therapist Assistant programs must meet university entrance requirements as well as those of the specific programs. Admission to SIUC does not insure admission into one of the above two year associate degree programs. Interested counselors/students are urged to contact the individual department chairmen to determine what additional materials may be required for admission. All students will receive further information after their admission to the university.

Dental Hygiene applicants are required to take the Dental Hygiene Aptitude Test. This test must be taken in April of a student's junior year or no later than November of the senior year. All application materials to the University must be on file with the Admissions Office no later than January 16, 1981, and all application materials to the Dental Hygiene program must be on file with the Dental Hygiene program by February 13, 1981 for consideration for Fall 1981.

Physical Therapist Assistant applicants must file all application materials both to the university and to the program no later than November 7, 1980 for consideration for Fall 1981.

Students interested in the associate degree Nursing curriculum must file all application materials, including verification of LPN or equivalent training, both to the university and to the program by February 1, 1981 for Fall 1981 entrance.

Students may be admitted only during the fall semester to associate degree programs in Dental Hygiene, Physical Therapist Assistant, Commercial Graphics-Design and Dental Laboratory Technology.

ADMISSION OF G.E.D. APPLICANTS TO UNIVERSITY PROGRAMS

Non-high school graduates may be considered for admission by satisfactorily passing the G.E.D. examination and submitting all required application materials. Students who are less than 21 years of age are also required to achieve a minimum ACT score of 15 for admission to four-year programs.

ADMISSION OF TRANSFER STUDENTS

For academic purposes undergraduate applicants for admission to the University are considered to be transfer students when they present any amount of graded work for transfer consideration which was earned after high school graduation; otherwise, they are considered for admission as new freshmen.

In the event transfer students' grade point averages cannot be determined, their admission may require, in addition to a review of their college performance, standardized examinations and secondary school records.

Transfer students who have been suspended for any reason other than academic failure must be cleared by the Student Life Office before admission will be granted by the director of admissions.

Transfer students will be admitted directly to the school or college in which their major fields of study are offered. Students who are undecided about their major fields of study will be admitted to the General Academic Programs Division or selected other units.

Transfer students from non-baccalaureate programs will ordinarily be placed in the upper division unit in which they plan to continue their studies. Students admitted to associate degree programs of the School of Technical Careers will be enrolled in that academic unit.

ADMISSION OF TRANSFER STUDENTS TO BACCALAUREATE PROGRAMS

Students who have an overall "C" average as computed by SIUC, 2.0 on a 4.0 scale (all institutions), and are eligible to continue their enrollment at the last institution attended are eligible to be considered for admission for any semester. If a student is seeking admission with fewer than twenty-six semester hours, the applicant will be required to meet the admission requirements of a beginning freshman as well as a transfer student.

Transfer students who have completed a minimum of one year of work can be considered for admission one year in advance of their date of matriculation if they plan to transfer without interruption. Students who have completed less than one year of study may initiate the admission process after the completion of one semester or one quarter of work. Students who are enrolled in a collegiate program for the first time and wish to transfer upon completion of their first term may do so if they meet the University's admission requirements for beginning freshmen. Admission may also be granted one year in advance for selected programs to students who are in their first term of a collegiate program provided they qualify for admission as beginning freshmen. Admission granted to a student on partial or incomplete records is granted with the condition that the student will have maintained an overall "C" average and be eligible to continue at the last school attended. Students whose final transcripts indicate a grade point average or scholastic standing less than that required for unconditional admission will have their initial admission withdrawn.

Students who have graduated with an associate degree in a baccalaureate-oriented program from a two-year institution may enter Southern Illinois University at Carbondale any semester without regard to their average provided they have not taken additional college-parallel work since their graduation. If they have, their admission will be considered on the basis of the University's regular transfer admission standards.

Students applying for admission to the University to pursue baccalaureate programs from programs not so oriented will be considered for admission as follows: (1) a student who has been enrolled in an institution which is accredited by one of the regional accrediting associations or is in candidacy status with one of the regional accrediting associations will be considered for admission on the basis of the regular transfer admission standards and (2) a student who has completed a two-year or equivalent program with a C average in an institution which is not accredited by one of the regional accrediting associations will be admitted if the institution is one recognized by NATTS, AMA, ABET, or similar accrediting bodies recognized by the National Commission on Accrediting or the United States Office of Education. Students who have not completed two-year or equivalent programs or have less than a C average will be considered for admission as entering freshmen.

Transfer students who do not meet the above requirements may still be considered for admission. Additional evidence of scholastic ablity is required: 1) high school transcript; 2) ACT scores; 3) any other tangible evidence that additional education can be completed successfully.

ADMISSION OF TRANSFER STUDENTS TO ASSOCIATE DEGREE PROGRAMS

Students who have an overall "C" average, 2.0 on a 4.0 scale (all institutions), and are eligible to continue their enrollment at the last institution attended will be considered for admission for any semester. If a student is seeking admission with fewer than twenty-six semester hours, the applicant will be required to meet the admission requirements of a beginning freshman as well as a transfer student for unconditional acceptance.

Transfer students who do not meet the above requirements may still be considered for admission. Additional evidence of scholastic ability is required: 1) high school transcript; 2) ACT scores; 3) any other tangible evidence that additional education can be completed successfully.

A student who is admitted to an associate degree program as a transfer student and then decides at a later date to enter a four-year program must meet the University's baccalaureate admission requirements at the time of transfer.

New students may be admitted only for the fall semester to selected majors in the School of Technical Careers. Please consult the admission application guide to determine when new students can be admitted to two-year programs in the School of Technical Careers.

ADMISSION TO THE TEACHER EDUCATION PROGRAM

Admission to the University does not insure admission to the Teacher Education Program. It is necessary to make formal application for admission to the Teacher Education Program. If a student has an overall grade point of at least 2.15 (4.0 scale) and a minimum of 30 semester hours of completed academic work, including Education 201, the student is eligible for admission to the program. Students with at least 60 semester hours and/or an Associate of Arts or Science Degree may be admitted to the Teacher Education Program (assuming other prerequisites are met) and register concurrently for Education 201, 301, and 303. Application forms are available in Room 108 of the Wham Education Building and must be returned, along with the student's latest transcript, to the same office. All applications must be submitted in person. Applications received by mail are not approved.

Admission to "pending" status in the program is granted by the Coordinator of Teacher Education Services in Wham 108. This status allows a students to begin work on the block of professional education courses and experiences. Additional approval from the department offering the teaching major is required before a student can complete the sequence of professional education courses, including the semester of student teaching.

Students not approved for advancement in the Teacher Education Program will be counseled about alternative degree programs.

ADMISSION OF INTERNATIONAL STUDENTS

In general, international students must meet the same academic standards for admission as those required of native students. As there is considerable variation between educational systems throughout the world, precise comparative standards are not always available. Therefore, international students are selected upon the basis of their former academic work and the students' financial resources for support during the normal period of time required to reach the objectives of their studies.

In addition to submitting copies of secondary school records and, when applicable, college transcripts, international students must also submit scores from TOEFL examination (Test of English as a Foreign Language). TOEFL scores are required of all international students who (1) have completed their secondary education in a country where English is not the native language, (2) have completed fewer than two years study in a United States high school, (3) have completed fewer than two years (60 semester hours) of collegiate training in an accredited United States college or university. Students who have completed their secondary education in a country where English is the native language are required to submit scores from either the American College Test or the Scholastic Aptitude Test.

Students who have acquired immigrant status are also required to demonstrate English proficiency. English proficiency can be demonstrated by successful completion of the TOEFL examination or a special English examination administered by the Center for English as a Second Language. Immigrants who have completed at least two years of study in a United States high school, have earned sixty semester hours in a United States College or University, or have completed their secondary education in a country in which English is the native language are not required to submit TOEFL scores or write a special English examination.

International students whose secondary school and college records are acceptable for admission purposes must also recieve high enough TOEFL scores for unconditional admission. Students with a TOEFL score of 525 or higher will be granted unconditional admission. Applicants whose TOEFL scores is between 475 and 524 will be admitted contingent upon completion of an English re-test administered by the Center for English as a Second Language. Students who fail to submit TOEFL scores, or who do not submit acceptable TOEFL scores, will be required to attend courses at the Center for English as a Second Language.

International students interested in making application to Southern Illinois University at Carbondale should address their inquiries to the Office of Admissions and Records, Southern Illinois University at Carbondale, Carbondale, Illinois 62901.

ADMISSION OF SPECIAL CATEGORIES OF STUDENTS

Several types of students are given special consideration when seeking admission to the University. These are described below:

ADMISSION OF VETERANS

Veterans are admissible in good standing regardless of their previous academic records provided they have completed no college work since military separation or the college work they have completed since separation/discharge is of "C" quality or better. It is assumed a veteran has graduated from high school or has earned the GED equivalency certificate. A veteran is required to submit all of the necessary academic records to the Admissions Office before his or her application for admission can be processed.

BASIC SKILLS AND SPECIAL SUPPORTIVE SERVICES

The University operates two programs through which educationally and socially disadvantaged students are admitted to the University each fall who would otherwise not meet the University's regular admission standards. All applicants who do not meet established admission requirements will have their applications reviewed automatically for consideration.

ADMISSION OF ADULTS AS UNCLASSIFIED STUDENTS

Adults who have never enrolled in an institution of higher education may enroll in select courses as a non-degree student without submitting all of the academic records required of a regularly admitted student. Students in this category must be high school graduates or have passed the GED Test. Applicants interested in seeking admission as an unclassified student are encouraged to write to the Office of Admissions and Records.

HOUSING INFORMATION

REGULATIONS

All SINGLE FRESHMAN under the age of 21, not living with parent or guardian, are required to live in on-campus residence halls, or similar privately owned residence halls. The privately owned residence halls must provide facilities, food service, and supervision comparable to on-campus housing.

All SINGLE SOPHOMORES under the age of 21, not living with parent or guardian, are required to live in on-campus residence halls or University approved off-campus housing. Sophomore approved housing includes rooming houses and residence hall apartments. Such facilities are not required to provide food service but are required to have University approved adult managers and are inspected and approved by the University.

There are no University regulations for JUNIOR, SENIOR, GRADUATE, MARRIED STUDENTS, VETERANS, OR those students 21 years of age or over on the first day of the semester.

UNIVERSITY FACILITIES FOR SINGLE UNDERGRADUATES

BRUSH TOWERS
The Brush Towers residential area, located on the southeast edge of the SIUC campus, consists of two 17 story air-conditioned residence halls (Mae Smith and Schneider Tower). Each hall houses 816 students (male, female, co-ed).

UNIVERSITY PARK
The University Park residential area, located on the southeast edge of the SIUC campus consists of one 17 story residence hall (Neely Hall-male, female, co-ed), and three 4-story men's triad buildings (Allen, Boomer, and Wright Halls). (This area is highly recommended for students taking classes at the School of Technical Careers or SIU Airport since the bus service departs from this location). All buildings are air-conditioned.

THOMPSON POINT
The Thompson Point residential area, located on the shores of the SIUC Campus Lake, consists of eleven halls with each housing approximately 120 students. (Male, Female, Co-ed). All buildings are air-conditioned.

CONTRACT COSTS - All Areas $896/Semester $1,792/Academic Year

Inquiries concerning on-campus housing should be directed to University Housing, Supervisor of Contracts, Washington Square; (618) 453-2301.

UNIVERSITY FACILITIES FOR MARRIED STUDENTS

SOUTHERN HILLS
The Southern Hills residential area located on the southeast edge of the SIUC campus consists of efficiency, one bedroom and two bedroom apartments for married students.

EVERGREEN TERRACE
The Evergreen Terrace residential area located on the southwest edge of the SIUC campus consists of two and three bedroom apartments for married students.

MARRIED STUDENT HOUSING COST

Efficiency apartments	$157/month
Furnished one bedroom	$174/month
Furnished two bedroom	$186/month
Unfurnished two bedroom	$180/month
Unfurnished three bedroom	$184/month

The University pays all utilities. Interested students should contact Family Housing, Southern Illinois University at Carbondale, Carbondale, Illinois 62901; (618) 453-2301.

OFF-CAMPUS FACILITIES

Single student facilities include residence halls, apartments, rooming houses and trailer courts. Married student facilities include apartments, rooming houses, private houses and trailers. Students may obtain information on off campus facilities through the Housing Information Center, Washington Square, Building B, SIUC; Telephone (618) 453-2301.

GENERAL HOUSING INFORMATION

APPLICATION FOR HOUSING: All students automatically receive information and applications for housing about three weeks after admission.

TERM OF CONTRACT: Housing contracts are written for the Fall and Spring semesters and remain in effect for these two semesters. Summer contracts are issued separately. Students who desire housing during both the summer and the fall should submit two separate housing applications.

SMALL GROUP HOUSING: This residential area primarily provides housing for recognized sororities and fraternities. Assignment to these areas is by invitation and interested students should contact fraternal organizations or the Inter-Greek Council, 618-453-5714.

MEAL SERVICE: In all areas except married student housing and Small Group Housing, meals are provided on the basis of 20 meals per week, 3 meals each day, 6 days per week, and breakfast and noon dinner on Sundays. Unlimited second helpings are offered.

SPECIAL INTEREST GROUPS: Students may request to be assigned to areas where their special interest can be accommodated, such as intensive study areas, transfer student areas, upperclassman, graduate areas, over 21, and University Honors Program areas.

COED LIVING: Co-educational living is available at all areas except to first semester freshmen students.

ROOM FURNISHINGS: All rooms are equipped with twin size beds, closet space, chest of drawers, desks, study chairs, and draperies. Free weekly linen service provides students with two sheets and one pillow case. Room arrangements are two students per room sharing private bath with adjoining two student room, except University Park for men which has community showers.

ROOMMATES: New students both freshman and transfer have the opportunity to select a roommate of their choice before arriving provided the request is mutual and each student has a signed contract on file with advance payment by May 1, and space exists at the time room assignments are made.

REGISTRATION AND ADVISEMENT

Two registration periods are available each semester: Advance and Final.

Advance Registration is conducted during approximately 11 weeks of the preceding semester. New freshmen and transfer students entering in the Fall Semester have several weeks during June, July and August set aside for the purpose of orientation, advisement, and registration. The Advance Registration period is highly recommended for new freshman and transfer students as it permits maximum course selection, counseling and campus orientation.

Final Registration is conducted during the last two weekdays preceding the start of the semester. Late applicants and students who did not advance register will complete the advisement and registration process during this period.

A similar procedure is used for advisement and registration for the spring semester and summer session.

ADVISEMENT

All new students (freshman, transfers) are assigned an advisement appointment and notified by mail. Appointments are mailed out for the semester indicated around the following dates: fall, June 15; spring, October 15; summer, April 1.

All new students will receive additional information on the advance registration procedures at the time they receive their advisement appointment. Should a student find it is impossible to keep his or her advisement appointment he or she should contact his or her advisement unit and suggest an alternative date during the advance registration period.

Re-entry and continuing students must make their own advisement appointment with their academic unit advisement center.

PROCEDURES

Advance registration usually takes one-half day unless the student elects to take advantage of various proficiency examinations. Parents are encouraged to accompany their son or daughter.

LODGING AND PARKING

Adequate lodging facilities are available in and near the community at various motels. Students advance registering during the summer for fall semester may acquire overnight lodging on campus only if they are participating in the Summer Orientation programs through the Office of Student Development.

In addition, guest parking permits are included in the registration information packet. The Arena parking lot, Student Center lot, and metered stalls on campus are available for campus parking to visitors.

FEE ASSESSMENT

Students who have been awarded scholarships (i.e., ISSC) should bring a copy of the award notification so that their fees can be assessed accordingly.

ORIENTATION: TWO HOURS

Guests are welcome to tour the campus or visit offices related to their special needs (housing, financial assistance, etc.). In addition, the Office of Student Development coordinates scheduled orientation programs to help the new or transfer student become more familiar with SIUC. Through participation at these sessions, students and parents meet with various university faculty and staff depending on the orientation program chosen. During the summer, there are several two-day sessions available providing opportunity to live on campus and to better understand the academic and community environment. For more information contact the Office of Student Development (618-453-5714).

ADVISEMENT: APPROXIMATELY FORTY-FIVE MINUTES

A student is advised of requirements and proficiency opportunities, discusses vocation plans, and then selects appropriate courses.

REGISTRATION: ONE HOUR

The student selects the time his or her classes will meet, obtains I.D. badge, and acquires fee statement.

ADVISEMENT CENTERS

	Area code (618)
General Academic Programs	453-4351
Pre-Major Advisement, Pre-nursing	
School of Agriculture	453-3080
College of Business and Administration	453-5250
College of Communications and Fine Arts	453-4308
Art (Allyn)	453-2032
Cinema and Photography (Communications Building)	453-2682
Journalism (Communications Building)	536-3361
Music (Altgeld Hall)	453-2527
Radio-Television (Communications Building)	453-4343
Speech Communication (Communications Building)	453-2291
Speech Pathology and Audiology (Communications Building)	453-4301
Theater (Communications Building)	453-5741
College of Education	453-4394
College of Engineering and Technology	453-2261
College of Human Resources	453-2581
Division of Administration of Justice	453-5701
College of Liberal Arts	453-3388
College of Science	536-5537
School of Technical Careers	536-6682
(All majors except:)	
Automotive Technology	985-4024
Aviation Technology, Avionics Technology	536-3371
Construction Technology	529-1143
Tool and Manufacturing Technology	985-4110

TUITION AND FEES

Tuition and fees charged students are established by the Board of Trustees and are subject to change whenever conditions necessitate. All assessments are on a per-hour basis, with 12 hours considered full time. The following fee schedule is for the 1980 Fall Semester.

ON-CAMPUS UNDERGRADUATE FEE SCHEDULES

Semester Hours Enrolled	Illinois Residents			Non-Illinois Residents		
	Tuition	Student Fees	Total	Tuition	Student Fees	Total
1	$ 26.00	$ 59.65	$ 85.65	$ 78.00	$ 59.65	$137.65
2	52.00	67.05	119.05	156.00	67.05	223.05
3	78.00	75.45	153.45	234.00	75.45	309.45
4	104.00	84.85	188.85	312.00	84.85	396.85
5	130.00	94.25	224.25	390.00	94.25	484.25
6	156.00	103.65	259.65	468.00	103.65	571.65
7	182.00	113.05	295.05	546.00	113.05	659.05
8	208.00	122.45	330.45	624.00	122.45	746.45
9	234.00	131.85	365.85	702.00	131.85	833.85
10	260.00	141.25	401.25	780.00	141.25	921.25
11	286.00	150.65	436.65	858.00	150.65	1008.65
12+	311.00	160.05	471.05	933.00	160.05	1093.05

All students will pay the full Student Medical Benefit Fee of $45.00, which will entitle them to full medical benefits at the Health Service. An on-campus student may seek a refund of the Student Medical Benefit Fee within the first four weeks of each semester by contacting the administrative director of the Health Service. (The on-campus undergraduate student fee includes allocations to the Student Medical Benefit Fee, Student Recreation Fee, Athletic Fund Fee, Student Center Fee, Student Activity Fee, Student-to-Student Grant, and Bond Retirement Fee).

The Student-to-Student Grant Program Fee is voluntary. Students may receive a full refund for this fee by requesting such within ten days following full tuition and fee payment.

Payment: Tuition and fees are payable by semester. A student who advance registers receives a fee statement and may pay either by mail or in person at the Bursar's Office, by the deadline date specified on the statement. Students who register for classes who do not pay their tuition and fees by the specified deadline will have their registrations cancelled. A student who registers during final registration must pay tuition and fees at the time of registration.

A student holding a valid scholarship is exempt from tuition and fees to the extent prescribed by the scholarship. An Illinois State Scholarship may cover all tuition and fees or it may be a partial award.

Tuition Costs by Year: Full time Illinois residents wil pay $942.10 per year for tuition and fees (fall and spring semesters). Full time out-of-state (non-residents) students will pay $2,186.10 per year for tuition and fees.

Total University Charges: Full time Illinois residents can expect to pay up to $1,792.00 per year in housing costs bringing total university charges to approximately $2,734.10 per year for room and board, tuition and fees. Full time out-of-state students can expect to pay up to $1,792.00 per year for housing bringing total university charges to approximately $3,978.10 per year for tuition and fees, room and board.

Textbooks: Students must purchase all textbooks (estimated between $250-$275 per year).

Personal Expenses: Includes transportation to and from home, entertainment and personal items estimated at $1,000.00 per year.

FINANCIAL ASSISTANCE

The Office of Student Work and Financial Assistance at SIUC makes every attempt to insure that all students have the economic opportunity to matriculate and continue their education at SIUC.

Every effort is made to provide a "package" of financial assistance including Scholarships, where warranted, Grants if need is shown, Work for all students who desire it regardless of financial need, and Loans such as the National Direct or Guaranteed.

SIUC distributed over 22 million dollars in financial aid last year, over 7000 student workers were utilized, and approximately 80% of all the students on the SIUC campus received some form of financial aid.

TYPES OF ASSISTANCE

SCHOLARSHIPS
- Illinois State Scholarship Commission Monetary Award
- Southern Illinois University Scholarship
- Illinois State ROTC
- National Guard
- Junior/Community College Scholarship
- National Collegiate Athletic Association Award
- Association of Intercollegiate Athletics for Women
- Illinois State Military Scholarship
- General Assembly Scholarship
- Dependents of Prisoners of War and Missing in Action
- Survivors of Policemen or Firemen Killed in the Line of Duty
- Air Force ROTC

GRANTS
- Basic Educational Opportunity Grant (BEOG)
- Supplemental Educational Opportunity Grant (SEOG)
- Special Education Traineeships
- Vocational Rehabilitation

LOANS
- National Direct Student Loan (NDSL)
- Illinois Guaranteed Loan
- Guaranteed Loans for Out-of-State Students
- Short Term Emergency Loans

PART-TIME EMPLOYMENT
- Student Work (On-Campus)
- Federal Work-Study (On-Campus)
- Student Work (Off-Campus)
- Cooperative Education Work Program
- Summer Work Program Nationwide

OTHER
- Veterans - Chapter 34 G.I. Bill
- Veterans - Chapter 35
- Veterans - Chapter 31 Vocational Rehabilitations
- Veterans - Pension for Dependent of Deceased or Disabled Vets (Form 674)
- Social Security
- Railroad Retirement

GENERAL INFORMATION

ACT/FFS

Prospective students seeking financial aid from SIUC must submit an American College Testing Program Family Financial Statement to the American College Testing Program, Financial Aid Operations, P.O. Box 1000, Iowa City, Iowa 52240. The ACT/FFS is the basis for all campus aid, including student employment.

*SIUC does not use the FAF (Financial Aid Form).

All Illinois undergraduate students are urged to apply for the Illinois State Scholarship Commission (ISSC) monetary award as well as the Basic Educational Opportunity Grant Program (BEOG). The BEOG should be filed no later than April 1, 1981, in order for students to receive the award at the start of Fall 1981.

As SIUC receives the processed ACT/FFS from Iowa City students are automatically sent applications for programs for which they appear to be eligible.

Policy on Satisfactory Progress for Students Receiving Financial Assistance --

In compliance with the federal legislative amendments (1976) to the Higher Education Act of 1965, SIUC has instituted a policy regarding satisfactory academic progress which must be met by students receiving financial assistance. The policy states an expectation that full-time students will pass a minimum of twelve (12) semester hours per semester enrolled. Half-time students must pass a minimum of six (6) semester hours per semester enrolled.

Any student who does not meet this expected progress will be placed on Financial Aid Warning for a semester and may be terminated from receiving further financial assistance if the student falls eighteen (18) hours or more behind the expected academic progress as defined above. Students will remain on Financial Aid Termination until such time as satisfactory progress is achieved.

A copy of the complete policy on satisfactory progress for students receiving financial assistance is available in the Student Work and Financial Assistance Office upon request.

TIMETABLE

Semester	Submit Applications by
Spring 1981	October 1, 1980
Summer 1981	February 1, 1981
Fall 1981	April 1, 1981
Spring 1982	October 1, 1981

It is imperative that all students complete and return the necessary application materials to the processing agency as soon as they are available. Preference is generally given in awarding of campus-based aid money to completed applications submitted prior to May 1.

BEOG: All students are responsible for submitting their three-page Student Eligibility Report (SER, the results from the the BEOG application) to the Office of Student Work and Financial Asistance as soon as it is received, reviewed for accuracy, and signed where indicated.

All financial aid opportunities for campus-based aid including NDSL, SEOG, STS, SIU Scholarships, etc., are awarded contingent upon available funds.

Transfer students beginning attendance any semester or session other than Fall should expect limited campus-based financial aid resources to be available due to early awarding to continuing SIUC students.

Financial Assistance/Transfer Students -- Transfer students should know that financial aid being received at their previously attended school(s) does not automatically follow them to SIUC. Transfer students should check with the Student Work and Financial Assistance Office to determine if their student assistance will be transferrable to SIUC and to discover what new financial assistance opportunities may be available.

Federal regulations require transfer students seeking federally supported financial assistance at SIUC to forward a "Financial Aid Transcript" indicating all financial assistance received from the school(s) previously attended. Financial Aid Transcript forms will be mailed from the Student Work and Financial Assistance Office upon admission to SIUC. They should be completed by the previously attended school(s), signed, and returned to SIUC.

Students wishing to continue a National Direct Student Loan (NDSL), a Supplementary Educational Opportunity Grant (SEOG), or to qualify for a Work-Study job must reapply for these at SIUC by submitting a FY 81 ACT/FFS. Students currently holding an Illinois Guaranteed Loan (IGL) should check with the issuing lender to make sure the loan may be continued at SIUC.

Students with a Basic Educational Opportunity Grant (BEOG) who may be transferring to SIUC at any time other than the fall semester must obtain a duplicate Student Eligibility Report (SER) for submission to the SIUC Student Work and Financial Assistance Office. Students who are currently receiving an Illinois State Scholarship Award (ISSC) must notify the Illinois State Scholarship Commission about the anticipated transfer. The amount of the award will then be recomputed and adjusted to reflect the costs of attending SIUC.

Students and counselors desiring additional information should contact:

Office of Student Work and Financial Assistance
Southern Illinois University
Carbondale, Illinois 62901
(618-453-4334)

SERVICES

Career Planning and Placement Center, 618-453-2391
This office provides students the opportunity to explore occupations and develop vocational interests, examine individual potentials and interests, examine job market opportunities, and be assisted in placement into a career. Vocational and educational counseling, testing, and placement services are provided. Students may also arrange for programs such as the Graduate Record Examination, Miller Analogy test, Law School Aptitude test, etc. See also section on "Entry Level Job Titles."

Counseling Center, 618-453-5371
The Counseling Center is staffed with professional counselors qualified to assist students with personal development and resolution of problems. Personal problems, marital adjustment difficulties, social skill development, parental conflict, and sex role awareness development are areas of frequent concern to students. Counseling is provided through one to one student-counselor contact or in group discussion within an atmosphere of confidentiality and trust.

Office of Women's Services, 618-453-3655
The purpose of the office of Women's Services is to maximize the opportunities and experiences of women who choose to attend SIUC. One of the most important functions of the office is to facilitate personal growth that can result in assisting women in recognizing and developing their potential for success--both during and after college. The services fall into four categories: 1) A clearinghouse for resources and referral information; 2) Development and implementation of outreach programming (i.e., workshops, seminars, groups, lectures) on topics relevant to women; 3) Consultation for other services that are working with women in the University and community; and 4) Advocacy and support for women students, including providing programs designed specifically to assist adult women students who are returning to school or who are furthering their education.

Specialized Student Services, 618-453-5738 (Voice or TTY)
This office coordinates and provides support services to disabled students including those who are non-ambulatory, semi-ambulatory, visually impaired, hearing impaired, learning disabled, or otherwise permanently disabled. A wide range of support programs and services are offered including: academic support services, special transportation and parking arrangements, modified housing, speech therapy and physical therapy, adapted recreational activities, wheelchair repair, personal attendants, and specialized career counseling and placement services. The academic support services include: test proctoring services for students needing additional time or reading or writing assistance to complete regular course exams; pre-enrollment planning for support services; readers, taped texts, special equipment, and mobility training for the visually impaired and learning disabled; notetakers and interpreters; and special counseling and communications training for the hearing impaired. The Illinois Department of Rehabilitation Services (IDORS) maintains an on-campus office, and the SSS office has close liaison with IDORS to facilitate admission and enrollment of disabled students sponsored by IDORS. The SIUC campus is highly accessible, and all programs, services, and activities are available to disabled students. The disabled individual applies for admission in the same manner as any other applicant. The nature or severity of disability have no bearing on the admission determination. Interested disabled persons are strongly encouraged to formally apply for admission as far as possible in advance of the semester starting date in order that all necessary support services, financial assistance, special equipment, and housing arrangements may be arranged in advance.

EXTRACURRICULAR ACTIVITIES

Office of Student Development, 618-453-5714
The Office of Student Development, a unit of the Student Life Office in the division of Student Affairs, provides programs, activities and services which may be broadly identified as representing three major thrusts: (1) student involvement, (2) student development, and (3) experiential learning. Program emphases include new student orientation services, student volunteerism programs, leadership development services, student organization programs and activities, fraternities and sororities, credit for programming activities, non-traditional student program, and student special populations programs.

Student Activities, 618-453-5714
Student Activities is made up of concerned students whose interests are expressed through the Activities Council. The decision as to what will be offered to the student body is the responsibility of the Activities Council, with the final authority resting under student control. There is an office staff of professional activities consultants available as advisors and fiscal administrators.

Some of the general areas of concern for this year will include the environment, mass media, social events, and cultural affairs.

The best guides to the many cultural, social, and recreational events are the Daily Egyptian and the local newspaper, the Southern Illinoisan.

Social Activities

The University annually sponsors over 5,000 student activities. These include formal, semi-formal, and informal activities.

Annual all-campus events include Homecoming, Parent's Weekend, International Festival, Theta Xi Variety Show, Convocations, Celebrity Series, Arena Series, Community Concert Series, films (movie hour and cinema classics), theater productions, and various instrumental and vocal performances. In addition, the calendar includes activities sponsored by the Undergraduate Student Organization, Saluki Marching Band, Debates, and important meetings, lectures, seminars, symposia, colloquia, and conferences.

Undergraduate Student Organization, 618-536-3381

The Undergraduate Student Organization is composed of the Campus Senate, which reflects student's concerns, passes bills and resolutions on student affairs, and gives recognition and financial assistance to student organizations.

Social Organizations

There are approximately 300 recognized university-approved student organizations on the SIUC campus. Every student has the opportunity to become actively involved in both academic and departmental organizations as well as an exhaustive number of social organizations.

Almost every ideology and special interest group is represented on the SIUC campus, all which benefit students greatly in both their academic, professional and social development.

Interested students should feel free to contact the Office of Student Development for information on special student groups.

INTERCOLLEGIATE ATHLETICS

Southern Illinois University at Carbondale boasts one of the country's best all-around sports programs. The Salukis compete successfully in the National Collegiate Association's Division I, which includes the nation's top 126 athletic programs, and in Division I of the Association of Intercollegiate Athletics for Women.

In the last 15 years, the Salukis have won national team championships in basketball, gymnastics, cross country, and golf as well as hundreds of individual national championships in all eleven intercollegiate sports for men.

The Saluki men's athletic program was recently enhanced with the admission of SIUC into the Missouri Valley Conference. In addition to its strength in several other sports, the Valley is recognized nationally as one of the top two or three basketball leagues in America.

Recent highlights for the men's program include an appearance by the 1977 basketball team in the NCAA Regional after winning the Missouri Valley Conference title. The Saluki track team has won the MVC title indoor and outdoor a total of eight times and last year finished 13th in the NCAA indoor championships while producing the NCAA javelin champion. The cross country team captured the 1976 and 1978 MVC titles, the baseball team the 1977 and 1978 MVC titles and the tennis team the 1977 title. In addition, the baseball team advanced to the College World Series in 1977 and finished third while the 1978 team finished second in the NCAA regional. The swimming team has won the last two National Independent Championships and has finished in the top 20 at the NCAA competitions 18 of the last 20 years. The gymnastics team has won four NCAA Championships in the last 16 years, more than any other school in the country, and the football is well on its way toward making itself known nationally.

SIUC remains at the forefront of women's intercollegiate athletics in America today, offering the aspiring athlete a respected, diversified program that has been in existence for more than 30 years. The women's athletic program at SIUC features eleven intercollegiate sports: badminton (co-rec), basketball, cross country, field hockey, golf, gymnastics, softball, swimming and diving, tennis, track and field, and volleyball. SIUC women athletes continue to be given the opportunity for high caliber competition on state, regional and national levels. Southern's gymnastics team has been particularly outstanding overall, winning AIAW national championships in 1970, 1974 and 1975. In recent years, the SIUC badminton, field hockey and softball teams earned top ten finishes in America. During 1979-80, the Lady Salukis won state titles in golf and gymnastics and qualified individual entrants for AIAW national competition in two other sports: track and field, and swimming and diving.

Coaches (Men's Athletics)

Baseball: Richard Jones
Basketball: Joe Gottfried
Football: Rey Dempsey
Golf: Walt Siemsglusz
Gymnastics (Men): Bill Meade
Swimming: Bob Steele
Tennis: Dick LeFevre
Track-Cross Country: Lew Hartzog
Wrestling: Linn Long

Coaches (Women's Athletics)

Badminton: Paul Blair
Basketball: Cindy Scott
Cross-Country: Claudia Blackman
Field Hockey: Julee Illner
Golf: Mary Beth McGirr
Gymnastics: Herb Vogel
Softball: Kay Brechtelsbauer
Swimming: Tim Hill
Tennis: Judy Auld
Track and Field: Claudia Blackman
Volleyball: Debbie Hunter

Athletic scholarships are awarded by coaches of individual sports. Applicants interested in obtaining more information on athletic scholarships are encouraged to contact the coach in the area of their interest.

Intercollegiate Athletics for Men
Telephone: 618-453-5311
Football Office: 618-453-3331
Location: Arena 118

Intercollegiate Athletics for Women
Telephone: 618-536-5566
Location: Davies Gym

Intramural Athletics (Men and Women)

SIUC provides extensive opportunities for students to participate in intramural athletics. Competition in a variety of sports is available. In addition, a new 140,000 square foot recreation building is now in operation.

Intramural Athletic Office: 618-536-5531

MOTOR VEHICLES

REGISTRATION

An eligible student may register only his or her own vehicle or a vehicle of a member of his or her immediate family. Only eligible students may park on campus.

ELIGIBILITY

Graduate students and the following categories of undergraduate students may apply for permission to use, operate, park, or possess motor vehicles on campus during posted hours.

1. Juniors and seniors (56 credit hours or more).

2. Veterans with two years of military service.

3. Married students.

4. Students residing in the home of parents or guardian.

5. A student who requires a motor vehicle for reasons of health or physical condition as certified in writing by Specialized Student Services.

6. A student who is certified in writing by the Office of Student Work and Financial Assistance to require a motor vehicle for purposes of employment.

7. A student not covered by 1 through 6 preceding whose reason for requiring a motor vehicle is judged valid by the appropriate dean of students and so certified in writing.

APPLICATION AND FEE

Each applicant must present a valid operator's license, vehicle registration card or notarized license-applied-for receipt, proof of liability insurance, and university identification card. A student must also present a receipted fee statement card. Dealer license plates are not acceptable for motor vehicle registration. If a parking decal is purchased, a fee is charged and is determined by the type of decal an applicant is eligible for and receives, currently $1-$30.

Yellow registration decals will be issued for $1.00 upon proper application.

NOTE: Decals issued, according to color, indicate the nature of any parking privileges permitted the holder.

All decals are valid until September 1, or until revocation or loss of elgibility. The extent of the motor vehicle privilege granted to any person shall be based on need or advanced academic standing, in general accordance with the following criteria:

1. First opportunity to obtain blue decals ($30) will be granted to full-time employees and to students whose health or physical condition require the privileges thereof. Handicapped students will be assessed $10 for the blue decal.

2. All employees and students eligible in accordance with any of the categories mentioned under ELIGIBILITY may apply for red decals ($10).

3. A yellow decal serves as evidence of the proper registration of a motor vehicle by an eligible student. It authorizes parking on campus in lots 24 (Campus Lake), 56 (Arena), and at the Student Center meters during the posted hours.

4. Temporary permits may be issued in unusual circumstances, and can be obtained from the Parking Division Office.

5. Guest permits are available to University visitors and offices, guests of University housing residents and guests of the Baptist Student Center free of charge.

For additional information or parking brochure contact:

University Parking Division
Southern Illinois University at Carbondale
Washington Square Building D
Carbondale, Illinois 62901
Phone: 618-453-5369

UNIVERSITY RECOGNITION OF HIGH SCHOLASTIC ACHIEVEMENT

A Scholastic Honors Day convocation is held each spring to honor students exhibiting high scholastic achievement. Candidates for a bachelor's degree in May or August who have maintained a grade point average of 3.50 or higher for all of their work through the fall semester of their senior year receive special honor. All other students having a 3.50 average are also honored at the convocation. The 3.50 average is required for all work taken at SIUC and, in the case of transfer students, for the total record. Except in the case of graduating students, students must be attending full-time to be eligible.

Graduating students with scholastic averages of 3.90 or higher receive University highest honors; those with 3.75 - 3.89 averages receive University high honors; and those with 3.50 - 3.74 receive University honors. This is recorded on the student's academic record cards and on their diplomas. The averages are required for the work taken at Southern Illinois University at Carbondale and, in the case of transfer students, for the total record.

Successful participants in all-campus honors programs which require maintenance of appropriate minimal scholastic standards, such as the University Honors Program, receive recognition by notation on their academic records and on their diplomas. Honors courses, individual honors work, and honors curricula, all designed to serve students with high scholastic potential, are offered by departments in the School of Agriculture, the College of Human Resources, the College of Liberal Arts, and the College of Science. A departmental or unit honors program consists of no fewer than six nor more than fourteen semester hours in research or independent study which is counted toward the students' majors. Some honors programs require a comprehensive examination at the end of the junior year and again at the end of the senior year. Grades may be deferred at the end of the first semester, but not from one school year to the next.

At the end of each semester, a dean's list is prepared. The criteria for inclusion on the dean's list is established by each of the academic units. To be recognized as being on the dean's list, the student must have been in attendance full-time (12 semester hours or more) and must have earned the average for the semester which has been specified by the academic unit. If the student has met the criteria established, a notation will appear on the grade slip at the end of the semester.

A variety of professional, departmental, and fraternal honorary organizations offer recognition and membership based upon scholastic achievement. Election or selection to most honoraries is noted at the Scholastic Honors Day convocation.

PROGRAM FLEXIBILITY FOR THE STUDENT

Southern Illinois University at Carbondale offers students a wide variety of programs on all higher educational levels. In addition, the University gives constant attention to methods whereby it might better serve present day educational needs. Described below are opportunities provided students to either earn credit through means other than the traditional class-room method or develop programs better suited to individual student needs than already established programs. While greater flexibility is the goal, the University exercises appropriate supervision to ensure that flexibility is accompanied by educational soundness.

CREDIT BY MEANS OTHER THAN CLASSROOM ATTENDANCE

Several methods are provided for students to earn credit by means other than the traditional classroom method. The methods currently available are described below.

HIGH SCHOOL ADVANCED PLACEMENT PROGRAM

Through the High School Advanced Placement Program high school students who are qualified through registration in an advanced placement course in their high schools or through other special educational experiences may apply for advanced placement and college credit through the Advanced Placement Program of the College Entrance Examination Board, 475 Riverside Drive, New York, New York 10027. To receive credit, students must earn a grade of 3, 4, or 5. Interested high school students should write the Office of Admissions and Records to learn the current listing of courses for which credit may be earned through this program.

Ordinarily, the maximum credit granted through advanced placement examination is fifteen hours. It is nonresident credit, does not carry a grade, and is not used in computing the students' averages. Credit granted at another accredited college or university under this plan is transferable to this University up to a maximum of fifteen hours. Students may appeal to academic deans to be granted more than fifteen hours.

The following courses are those in which a student may currently earn credit through the Advanced Placement Examination of the College Entrance Examination Board:

1. Physics: Consult Physics Department Chairperson
2. Chemistry: Chemistry 224 (5 sem. hrs) and 225 (2 sem. hrs) or
   Chemistry 222A (4 sem. hrs.) and 222B (4 sem. hrs.)
3. Biology: GSA 115 (3 sem. hrs.)
4. History: European - History 200 (3 sem. hrs.)
   American - GSB 300 (3 sem. hrs.) and GSB 301 (3 sem. hrs.)
5. English: GSD 101 (3 sem. hrs.)

COLLEGE LEVEL EXAMINATION PROGRAM - Policy Effective Summer 1980

Entering freshmen who take CLEP General Exams and score 520 or above in Science, Social Studies or Humanities are granted six (6) hours credit for each exam passed. These 6 hours

credit will count toward fulfilling General Studies requirements in Areas A, B, or C respectively, and will count as two (2) disciplines in the appropriate Area. There will be no reduction of CLEP credit once it is granted. If, prior to taking the CLEP exam, the student has received a grade or audit in college level work in any discipline included in the CLEP exam or if he or she is currently enrolled in such a course, credit will not be awarded. Exception: If the student took courses in a discipline in the Area at least five (5) years prior and did not receive credit, he or she may receive credit for the CLEP exam. Transfer students who enter SIUC with CLEP credit on the transcript will receive the CLEP credit here with no reduction in hours, up to the SIUC maximum. Students who, prior to implementation of this policy, have had CLEP credit reduced for courses taken after being awarded the CLEP credit, may apply at the Records Office to have it reinstated. No effort will be made to reinstate unless student applies.

Mathematics

Entering freshmen who take the CLEP exam and score 580 or above will be awarded four (4) hours of credit. Credit will not be granted if, before taking the exam, the student has received a grade or audit or is currently enrolled in any college-level mathematics course. Exception: If the student took courses in mathematics at least five years prior and did not receive credit, he or she may receive credit for the CLEP exam. After receiving CLEP credit in Math, the student may take GSD Math or Math Department courses withour reducing the CLEP credit. However, if he or she wishes to take Math courses beyond GSD 107, the student should take a placement test. Transfer students who have Math CLEP credit on the transcript will receive that CLEP credit here with no reduction in hours. Students who have been awarded CLEP credit in the past and have subsequently had it reduced by taking GSD or Math Department courses after being awarded the CLEP credit, may apply at the Records Office to have it reinstated so that they retain four (4) hours of CLEP credit. No effort will be made to reinstate unless the student applies.

English - Retroactive to Fall 1979

With a score of 650 or higher on the CLEP English examination, students are permitted the opportunity of taking GSD 120, Freshman Honors Composition (3 semester hours), instead of GSD 101 and GSD 117 (5 semester hours). If a student scores 675 or above on the CLEP English Proficiency examination, the student will receive 5 hours credit (3 hours, GSD 101; 2 hours, GSD 117). If a student scores 650 to 674, the student will receive (a) advanced placement in GSD 120, Freshman Honors Composition, and (b) 5 hours credit upon the satisfactory completion of GSD 120 with a grade of C or higher (3 hours, GSD 120; 2 hours, GSD 117). Transfer students desiring CLEP General English credit must submit an official score report for evaluation.

PROFICIENCY EXAMINATIONS

Through its proficiency examination program the University recognizes the importance of providing encouragement for academically talented students. Such students are permitted to make application to demonstrate the mastery of certain courses through proficiency examinations. Application forms are available at the departmental offices.

The following general rules govern the proficiency examinations for undergraduate credit.

1. Students who believe they are qualified to take a proficiency examination should check with the department offering the course to determine their eligibility to do so; students scoring in the top ten percent of ACT are particularly encouraged to avail themselves of this opportunity.
2. Credit not to exceed thirty hours (fifteen hours toward an associate degree), including credit through the College Entrance Examination Board, Advanced Placement Program, and the College Level Examination Program may be earned through proficiency examinations. Credit will be nonresident. (A combined total of 40 hours may be earned through proficiency examinations and credit for work experience.)
3. Upon passing proficiency examinations students are granted course credit and receive a Pass grade. Their records will show the name of the course, the hours of credit granted, and a notation "credit granted by proficiency examination." Students who fail a proficiency examination receive a Fail grade. This results in no penalty to the students. They will not receive credit and their records will show nothing regarding the proficiency examination. However, the proficiency examination grade report form will be filed in the students' folders for reference purposes.
4. Students may not take proficiency examinations for the same course more than one time. Nor may they take a proficiency examination in a course in which they have previously received a grade.
5. No credit granted by proficiency examinations will be recorded until the student has earned at least 12 hours of credit of "C" grade or above in residence at Southern Illinois University at Carbondale.

CREDIT FOR WORK EXPERIENCE

Work experience in the form of internships or student teaching is a common instructional technique. Southern Illinois University at Carbondale also permits certain undergraduate programs to grant credit for work experience that relates to students' areas of specialization. The credit granted is to apply to the major program and is awarded only upon approval by the major departments. Credit earned by work experience is limited to 30 hours and any combination of credit for proficiency examinations and credit for work experience is limited to 40 hours. Credit granted for work experience is considered nonresident credit when granted for work that is not part of a regular instructional course. Students should consult with their major departments to see whether they approve credit for work experience.

THREE-YEAR BACCALAUREATE DEGREE PROGRAM

It is possible for students to complete the regular four-year baccalaureate degree program in three years by utilizing proficiency examinations. The equivalent of one year of credit (30 semester hours) may be earned by this method. Students who desire to follow the three-year program should make the fact known to their academic advisors at the earliest possible date so their eligibility can be determined. A combination of programs may be employed to accumulate these 30 hours as described above in the section on Credit by Means Other than Classroom Attendance.

COOPERATIVE EDUCATION

The Cooperative Education Program, included in the Career Planning and Placement Center, is an optional educational pattern that provides an opportunity for students to alternate periods of academic study with periods of off-campus employment related to the student's academic majors or career goals. Periods should be of sufficient duration to provide meaningful classroom and off-campus experiences. Cooperative education provides students an opportunity to earn funds that may be needed to support and complete their education, while it gives them off-campus experiences that are closely integrated with and that enrich their total education.

SCHOOL OF TECHNICAL CAREERS INDIVIDUALIZED BACCALAUREATE PROGRAMS

The University provides an opportunity to continue educational pursuits toward a baccalaureate degree for students possessing an occupational, technical, or other similarly connotated educational background. The School of Technical Careers offers a Bachelor of Science degree in technical careers programs for such students. Individually designed programs are developed to meet the individual needs of the students. Programs do not duplicate baccalaureate programs already offered by other academic units.

The regular University baccalaureate admission and other academic requirements and regulations are followed in the technical careers program. A more detailed description appears later in this catalog under "Technical Careers."

UNIVERSITY STUDIES DEGREE PROGRAM

The University Studies Program provides the student with another option for earning a baccalaureate degree. The program is intended for the student who wants a broad, general education and does not wish to specialize on the undergraduate level. In fact, the program was proposed to serve the many students who express the desire to receive a degree, but whose interests are so varied as to preclude a major in a traditional discipline. Students may work toward either a Bachelor of Arts or Bachelor of Science degree in University Studies.

Students interested in the University Studies degree program should come to Woody Hall, Room C117, to pick up the guidelines for the program.

SPECIAL MAJOR

Individual students with academic needs not met in any of the existing majors within the University may arrange a program of courses more suited to their special requirements. Information on the procedures for establishing a Special Major may be obtained from the dean, General Academic Programs.

CAPSTONE PROGRAM

The Capstone Program enables community college graduates in occupationally oriented programs to complete a baccalaureate degree with two additional years of schooling. The program will prepare graduates for management-level positions in business, industry, and agriculture or occupational teaching.

Five degree granting units at the University are involved in the Capstone Program and students may complete degrees in any of the following areas:

School of Agriculture
- Agribusiness Economics
- Agricultural Education
- Agricultural Education and Mechanization
- Agriculture, General
- Plant and Soil Science

School of Engineering and Technology
- Industrial Technology
  - --industrial design
  - --manufacturing
  - --supervision and personnel
  - --technical sales
  - --other technical areas
  - --mining technology

College of Human Resources
- Administration of Justice
- Child and Family
- Clothing and Textiles
- Food and Nutrition
  - --food and lodging systems management

College of Education
- Business Teacher Education
- Home Economics Education
- Occupational Education
  - --occupational teaching

School of Technical Careers
- Technical Careers
  - --baccalaureate degree programs

Further information on the Capstone Program can be obtained from the Office of Admissions and Records.

SCHOLASTIC STANDARDS

The matter of scholastic standing is quite often of importance to students both while in school and later when they present a transcript of their educational record in support of their application for employment or additional schooling.

At the end of each semester or session of attendance a grade report is prepared for each student showing, in addition to the grades earned that semester or session, what his or her scholastic standing is and what his or her grade point average is for the semester or session, and for his or her over-all record. It is important that students understand the University's system for computing grade point averages and the various grade point average requirements.

Transferred grades are not to be used in determining students' calculated grade point average, except that transfer students who are admitted on probationary status will be required to earn a 2.0 average semester by semester until a total of 12 semester hours has been earned, before students are removed from probation.

The significance of the above should be clearly understood by transfer students when studying the general baccalaureate degree requirements. A 2.00 (C) average is required for the work taken at this University.

In computing students' grade point averages all grades of A, B, C, D, E and F are included in determining the number of calculated hours. Each hour of these grades (1 hour of A is worth 4 grade points) is given its numerical grade points, and the total number of calculated hours is then divided into the total number of grade points to determine the student's grade point average.

Effective with the 1971 summer quarter all earned grades carrying grade point values are considered when computing students' grade point averages, including each earned grade in a repeated course that is taken during the 1971 summer quarter and thereafter. When computing averages through 1971 spring quarter the policy contained in the 1970-71 Undergraduate Catalog is followed.

Students who wish to transfer from one SIUC unit to another, who have less than a C (2.0) grade point average, will be admitted to the new academic unit only if approved by the dean of that unit.

SCHOLASTIC PROBATION AND SUSPENSION SYSTEM

Students are expected to make satisfactory progress toward a degree, certificate, or other approved objective. To ensure that students are making progress, their records are checked against the regulations below.

SCHOLASTIC PROBATION

When a student's cumulative semester average and the cumulative Southern Illinois University at Carbondale average fall below a "C" average (2.0), the student will be placed on scholastic probation. A student on scholastic probation may continue enrollment at Southern Illinois University at Carbondale provided the student does not accumulate six negative points. The student with more than six negative points will not be suspended so long as the term average is "C" (2.0) or above. A student will remain in the category of scholastic probation until the cumulative Southern Illinois University at Carbondale average is "C" (2.0) or higher.

While on scholastic probation students may not enroll for more than 14 hours per semester unless approved to do so by the dean of their academic unit. Other limitations may be established by the academic unit within which the students are enrolled.

CONDITIONAL STATUS

Students admitted on condition are on scholastic probation for the term admitted. In addition, they must enroll for a minimum of twelve semester hours and complete ten semester hours of graded work (A,B,C,D,F). Students admitted on condition who meet the hour requirements will be placed in good standing when they earn a "C" (2.0) average or higher. They will remain on scholastic probation if they earn less than a "C" average but six or fewer negative points. Students who earn more than six negative points will be scholastically suspended.

TRANSFER STUDENTS ADMITTED ON PROBATION

Transfer students admitted on scholastic probation will remain in that status until they have a minimum of 12 semester hours of credit with at least a "C" average at Southern Illinois University at Carbondale. If they earn below a "C" for any session while on scholastic probation, they will be placed on scholastic suspension.

SCHOLASTIC SUSPENSION

Students will be scholastically suspended from Southern Illinois University at Carbondale if they fail to meet the requirements of their conditional or probational status. Students placed on Scholastic Suspension may seek reinstatement after a minimum of two semesters' interruption but must furnish tangible evidence that additional education can be successfully undertaken.

BASIC GRADUATION REQUIREMENTS

All students are expected to complete the following basic requirements for the bachelor's degree from Southern Illinois University at Carbondale.

1. A minimum of 120 semester hours of credit in approved courses.

2. The last 30 semester hours must be earned in residence at SIUC, if a student has transferred from another school.

3. An overall "C" average and at least a "C" average in the major. The average requirements apply to work taken at Southern Illinois University at Carbondale. The University does not carry the transfer grade point average.

4. Completion of general studies requirements, upper division unit requirements, and the requirements of the student's major and minor concentration.

The following two special regulations apply to students who transfer from two-year institutions:

1. The credit accepted from accredited twoyear institutions is limited only by the provision that 60 semester hours must be taken at Southern Illinois University at Carbondale or at any other approved four-year institution, except that the residence requirement must be met.

2. An associate degree in a baccalaureate-oriented program from an accredited institution will be accepted as meeting all of the General Studies requirements of Southern Illinois University at Carbondale. The degree will not, however, waive specific academic unit or major and minor requirements which may be offered via General Studies courses.

UNIT OF CREDIT

Southern Illinois University at Carbondale converted from the quarter to early semester calendar effective fall 1974. All references to hours of credit in this publication are to semester hours unless otherwise specified. One semester hour of credit is equivalent to one and one-half quarter hours. One semester hour of credit represents the work done by a student in a lecture course attended fifty minutes per week for one semester and, in the case of laboratory and activity courses, the stated additional time.

CLASS STANDING

Southern Illinois University at Carbondale requires students to earn at least 120 semester hours of acceptable credit in order to receive a baccalaureate degree. For academic classification purposes a freshman is a student who has completed fewer than 26 hours; a sophomore, from 26 through 55; a junior, from 56 through 85; and a senior 86 or more.

ACADEMIC LOAD

The normal academic load for students is 15-16 hours. The maximum is 18 hours, 21 with a Dean's approval.

The University considers 12 hours as the minimum number to constitute full-time attendance. This is the figure used for enrollment reporting purposes, by the Illinois State Scholarship Commission, and for Public Law 358 on the undergraduate level. Students attending school under some type of scholarship or assistance program that requires them to be enrolled as full-time students should check with the University office administering the program on this point. Further information on Public Law 358 is available at the Student Work and Financial Assistance Office.

Students on scholastic probation may not take more than 14 hours without approval of the head of their academic unit. Students employed full-time may not register for more than eight hours.

GENERAL STUDIES FOR THE TRANSFER STUDENT

A transfer student with an associate degree in a baccalaureate oriented program from a regionally accredited institution will be accepted as meeting all of the general education (General Studies) requirements of Southern Illinois University at Carbondale. The degree will not, however, waive specific academic unit or major and minor requirements which may be offered via General Studies courses. A transfer student without this degree who expects to graduate from Southern Illinois University at Carbondale must meet the General Studies requirements. These requirements need not be completed prior to transfer but must be fulfilled to meet the general graduation requirements.

General Studies Requirements

The General Studies Curriculum for the baccalaureate degree is divided into five major areas; the requirements in each area are listed below.

Area A Our Physical Environment and Biological Inheritance	9
Area B Our Social Inheritance and Social Responsibilities	9
Area C Our Insights and Appreciations	9
Additional course work from Areas A, B, and/or C	3
Area D Organization and Communication of Ideas	11
Area E Human Health and Well Being	4
Total	45

Students must complete a total of 30 semester hours in Areas A, B, and C. Within each Area they must complete a minimum of 9 semester hours, and they must include course work from at least 3 different disciplines in each Area. The remaining 3 semester hours may include coursework from any one of Areas A, B, or C, or from any combination of these three Areas.

Within Area D, the following are required: 5 semester hours of English composition; 4 semester hours of mathematics; and 2 semester hours of speech or other oral communication as offered in Area D. Some programs and upper division academic units have specific requirements for demonstration of competence in English composition. A student may determine which programs or units have this requirement by referring to college and school requirements listed in Chapter 4 of the University Catalog.

In Area E, the courses taken must include more than one activity or subject. Prospective teachers should also check the section in the University Catalog titled Professional Education Experiences to determine if Health Education coursework should be included in their four hours of Area E requirements.

Area A: Our Physical Environment and Biological Inheritance (GSA)

Area Requirements. A transfer student needs a total of no less than 9 semester hours of acceptable college level work in the area of science. A minimum of three different disciplines must be represented within this 9 hour block.

Area A Elective Section. Courses which regularly count within this area are chemistry, physics, earth science, geology, botany, zoology, biological sciences, physical sciences, physical geography, a basic course in physiology, a basic course in astronomy, a general course in microbiology. (Technical physics may also be counted in this area).

Course	Hours	
101	3	Conceptual Insights into Modern Communications Systems: From Hi-Fi Sound to Laser Beams
106	3	Chemistry for Non-Science Majors
110	3	Earth Science
115	3	Biology
125	3	Systems Nature of Our World
202	3	Space Science - Astronomy
208	1	Laboratory Experiences in Physiology
209	3	Principles of Physiology
211	3	Geology of National Parks
220	3	Survival of Man
221	3	Survival of Man
230	3	Energy and the Future
240	3	Ecology
302	3	Psychobiology
303	3	Ferns, Trees, and Wildflowers
312	3	Conservation of Natural Resources
313	2	Evolution
314	2	Human Heredity
321	3	Fossils: Keys to Ancient Life and Environment
322	3	Earth's Mineral Resources
323	3	Introduction to Gems and Gem Material
324	3	Water: Our Friend and Enemy
330	3	Weather
356	3	Creativity in Science and Technology
361	3	Acoustics of Music

Area B: Our Social Inheritance and Social Responsibilities (GSB)

Area Requirements. In the area of social studies a transfer student needs no less than 9 semester hours of acceptable work within a minimum of three different disciplines represented.

Area B Elective Section. Courses which regularly count within this area are introductory courses in sociology, psychology, economics, government, political science, global or economic geography, anthropology, American, world, or European history.

Course	Hours	
103	3	Geography of the Human Environment
104	3	The Human Experience: Anthropology
105	3	The Contemporary World
109	3	Introduction to Black America
111	3	Economic Development of Western Civilization
112	3	Comparative Economic Systems
125	3	Systems Nature of Our World
135	3	The Third World: The African Model
160	2	Mass Communications in Society
202	3	Introduction to Psychology
203	4	The Sociological Perspective
206	3	Applied Child Development
207	3	Contemporary Political Ideologies
211	3	Contemporary Economics
212	4	Introduction to American Government and Politics
220	3	Survival of Man
221	3	Survival of Man
231	2	The American Educational Systems
250	3	Introduction to Comparative Government and Politics
255	2	Regional Geography of the United States
270	3	Introduction to International Relations
299d	2	The High Price of Food
299e	3	Values, Systems and Society
300	3	Origins of Modern America, 1492-1877
301	3	Modern America from 1877 to the Present
305	3	Personal Finance
310	1	Current Events
321	3	Socialization of the Individual
325	3	Race and Minority Relations
330	3	Language and Behavior
341	3	Marriage as a Social Institution
346	3	Consumer Choice and Behavior
362	3	Science and Technology in Western Societies
378	3	Introduction to American Foreign Policy

Area C: Our Insights and Appreciations (GSC)

Area Requirements. A transfer student needs a total of no less than 9 semester hours of acceptable college level work in the area of humanities. A minimum of three different disciplines must be represented within this 9 hour block.

Area C Elective Section. Courses which regularly count within this area are in art and music appreciation, art and music history, survey courses in humanities, philosophy, oral interpretation of literature, survey literature courses such as poetry, fiction, modern literature, English and American literature.

Note: A student may substitute on an hour-for-hour basis a maximum of 4 semester hours of foreign language counting as one discipline toward the Area C requirement.

Course	Hours	
100	2	Music Understanding
101	3	Introduction to Art
102	3	Problems in Philosophy
104	3	Moral Decision
107	2	Life, Leisure, and Recreation
109	3	Introduction to Black America
200	3	Oral Interpretation of Literature
201	3	Introduction to Drama
202	3	Introduction to Poetry
203	3	Introduction to Theater
204	3	Meaning in the Visual Arts
205	3	Innovation for the Contemporary Environment
206	3	Music as a Creative Experience
207	2	Aesthetics
208	3	Elementary Logic
210	3	Introduction to Fiction
212	3	Oriental Humanities

214	3	Oriental Philosophies
216	3	Types of Eastern Religion
217	3	Types of Western Religion
218	3	The Epic of Humanity
221	3	Survival of Man
231	3	Greek Civilization
232	3	Roman Civilization
293	3-9	Studies in Literature
299e	3	Values, Systems and Society
317	3	Recent American Literature
325	3	Black American Writers
330	3	Classical Mythology
335	3	The Short Story
340	3	The Western Cultural Tradition
349	3	The Cinema
362	3	Science and Technology in Western Societies
363	3	Philosophy of Science
365	3	Shakespeare
371	2	Evolution of Jazz
390	3	Contemporary American Thought
393	3-6	Studies in Literature

Area D: Organization and Communication of Ideas (GSD)

Area Requirements. A transfer student needs a total of no less than 11 semester hours of acceptable college level work in the area of communications. Within Area D, the following are required: 5 semester hours of English composition; 4 semester hours of mathematics; and 2 semester hours of speech or other oral communication as offered in Area D. Some programs and upper division units have specific requirements for demonstration of competence in English composition. Students should consult the University Catalog to determine Area D requirements of the various schools and colleges at SIU.

Course	Hours	
101	3	English Composition
104	2	Grammar in Language
106	0	Elementary Algebra
107	4	Intermediate Algebra
110	2	Economic and Business Statistics
112	2	Basic Concepts of Statistics
113	2	Introduction to Mathematics
117	2	Expository Writing
118	2	Technical Report Writing
119	2	Creative Writing
120	3	Freshman Honors Composition
152	2	Interpersonal Communication
153	3	Public Speaking
199a	1	Library as an Information Source
199b	1	Computers and Communication

Area E: Human Health and Well-Being (GSE)

Area Requirements. A transfer student needs a total of no less than 4 semester hours of acceptable college level work in Health and/or Physical Education. A student may select any four hours, however, prospective teachers should consult College of Education requirements to determine if Health Education coursework must be included in the four hour Area E requirement.

Course	Hours	
100	1 to 4	Restricted Physical Education
*101	1 to 14	Aquatics
*102	1 to 10	Physical Fitness
*103	1 to 16	Dance
*104	1 to 34	Individual and Dual Activities
*105	1 to 12	Team Activities
*106	1 to 6	Martial Arts
*114	1 to 4	Intermediate Individual and Dual Activities
201	2	Healthful Living
236	2	Nutritional Ecology
240	2	Human Relations Between the Sexes

*Consult University Catalog p. 82 to determine various activities.

Special Note: Veterans may qualify for Area E credit for their military experience. See section on Evaluation of Credit.

Miscellaneous

The preceding General Studies requirements are not applicable to community college transfer students who have received an associate degree within a baccalaureate oriented program. This degree will automatically satisfy all general education requirements, but will not necessarily satisfy departmental prerequisite lower division courses required of the student's major area.

Students may satisfy some General Studies requirements by making certain approved substitutions of departmental courses for specified General Studies courses.

Any student who feels qualified to take a proficiency examination is eligible to apply. Credit is given to students passing proficiency exams. Credit by proficiency cannot exceed 30 semester hours. Application for proficiency exam should be initiated at the appropriate department.

Proficiency credit granted by other regionally accredited institutions will be recognized. Special regulations apply to proficiency credit earned through the College Level Examination Program (CLEP). See section on Evaluation of Transferred Credit.

APPROVED SUBSTITUTES

The departmental courses which have been approved as substitutions for General Studies courses are listed below. In no case does the departmental course substitute for more credit hours than the credit hours allowed in the comparable General Studies course. Community colleges who have comparable courses are encouraged to submit course descriptions for departmental approval.

General Studies Course	Approved Substitutes
GSA 101-3	One of: Physics 203, 204, 205, 253, 254,255, or 3 semester hours of technical physics. (The substitution of Physics 253, 254, or 255 is limited to one semester hour.)
GSA 106-3	One of: Chemistry 115, 140, 222, 224, 225 or 4 semester hours of technical chemistry
GSA 110-3	Geology 220
GSA 115-3	One of: Biology 306, 308, 309; Botany 200; Zoology 118
GSA 202-3	One of Physics 203b, 204b, or 205b
GSA 208-1 and 209-3	Phsl 210, Anl 331, or military credit for physiology
GSA 240-3	Biology 307
GSA 314-2	Biology 305
GSA 330-3	Military Credit for Meteorology
GSA unassigned-1 to 12	One to 12 semester hours from University Honors 251a and/or 351a
GSB 103-3	Geography 300
GSB 211-3	One of: Agribusiness Economics 204; Economics 214, 215
GSB unassigned-1 to 12	One to 12 semester hours from University Honors 251b and/or 351b
GSC 100-2	Music 101 or 102 or two hours of 013, 014, 017, 020, 021, or 022
GSC 101-3	Art 100
GSC 204-3	Art 207
GSC 206-3	Music 105a
GSC 293-3	English 209
GSC Foreign Language-4	Foreign Language

(Note: A student may substitute on an hour-for-hour basis to a maximum of 4 hours, provided the student has taken GSC courses totaling 5 hours in two other disciplines. Any additional hours of foreign language may be counted toward the 3 hours of additional course work required in areas A/B/C.)

GSC unassigned-1 to 12	1 to 12 semester hours from University Honors 251c and/or 351c
GSD 101-3	Linguistics 101
GSD 107-4	One of: Mathematics 110, 111, 114, 116, 117, 139, 140, 150, 151, 159, 250, 259, 282, or 4 semester hours of technical mathematics
GSD 117-2	Linguistics 102
GSD 118-2	One of: Administrative Sciences 302, Linguistics 103, or 2 semester hours of technical writing
GSE 101-114-4	Four semester hours from: Physical Education 115, 116, 117, 118, 119, 120, 170
GSE unassigned-1 to 4	1 to 4 semester hours from University Honors 251e and/or 351e
GSE 201-2	Health Education 350
GSE unassigned-1 to 4	ROTC Field Training

A maximum of 15 semester hours of comparable technical coursework can be substituted for General Studies requirements. Some of these substitutions are listed above; others may be possible on individual request to the Dean of General Academic Programs.

EVALUATION OF TRANSFER CREDIT

After a transfer student has been admitted, completed transfer work is evaluated in the Evaluations Section of the Office of Admissions and Records. This evaluation covers the student's extent of satisfaction of general degree and General Studies (general education) requirements. This evaluation of transfer credit provides other information such as total hours accepted, entry status, and the like. Copies of this evaluation are mailed to the student and to the academic advisement center of the academic unit he/she will be entering. The evaluation of transfer credit may not always be available for the first advisement appointment, or it may be an incomplete evaluation if the student was initially admitted on a partial transcript while in attendance elsewhere. In this case, the student should be aware of his or her completed work. Transferred courses which are not General Studies courses are evaluated by the department or agency directing the specific curriculum and are not reflected on the evaluation prepared by the Evaluations Section.

Transcripts and Test Scores

Transfer students who have taken college level work at other institutions must have official transcripts of all work forwarded to the admissions office. An official transcript from each college or university attended must be submitted. Failure to comply with this ruling, failure to indicate all institutions attended, or incorrect information regarding status at the other institutions can result in withdrawing an admission or dismissal for the student.

Transfer students who might qualify for advance standing must have both their ACT profile and their high school transcripts available in the General Academic Programs office. It is the student's responsibility to see that these items are submitted. If credit for a General CLEP exam (except English) appears in another college's transcript, credit will be evaluated at SIUC. For the General English CLEP credit to be evaluated, transfer students must submit official scores of the General Examination of the College Level Examination Program (CLEP). Also, credit possibilities based upon formal service-school training programs, USAFI courses, and military experience will be evaluated upon submitting required papers.

Transfer students may be admitted and their work tentatively evaluated on the basis of a partial or incomplete transcript. If the final and complete transcript is not submitted, the student will not be allowed to register for a second semester of attendance. It should be noted that it is the student's responsibility to request transcripts be sent to the Admissions Office.

NOTE: If the evaluation appears to be in error, the student and/or his or her advisor should contact the Office of Admissions and Records.

Status of Institution

The annual publications entitled Report of Credit Given by Educational Institutions published by the AACRAO and Accredited Institutions of Higher Education published by ACE are used for guidance relative to the status of institutions for credit acceptance purposes.

Regionally Accredited

If regionally accredited, credit is accepted unconditionally.

If an Illinois two-year institution with Class I status, credit is accepted unconditionally.

For students who transfer from non-baccalaureate programs in regionally accredited institutions, special regulations apply in terms of how credit will be accepted and evaluated.

Technical work in human resources, business and administration, agriculture, vocational education studies, engineering and technology, and the bachelor's degree program in the School of Technical Careers will be evaluated by the Office of Admissions and Records according to guidelines furnished by the academic units. In general, full credit (up to a maximum of semester hours set by each academic unit) will be accepted to count toward the hours required for the bachelor's degree. The School of Agriculture will accept only one-half of the technical credit towards the baccalaureate degree unless the student has obtained an associate degree and is admitted through the University's Capstone Program.

Course work in technical areas other than those listed above will be submitted to the dean's office for evaluation.

Students who have received an associate degree in a baccalaureate oriented program from a regionally accredited two-year institution will have satisfied all General Studies (general education) requirements for the baccalaureate degree and will be granted junior standing. Students will not have necessarily met lower division departmental required prerequisite courses for their academic unit. Students transferring with less than the baccalaureate oriented associate degree will have to fulfill the University's general education requirements prior to graduation. (See section -- General Studies and the Transfer Student).

Credit accepted from a regionally accredited two-year institution is limited only by the policy that states this student must earn the last 60 semester hours from a regionally accredited four-year institution or at Southern Illinois University at Carbondale. Also this student must meet residency requirements. Students presenting an excessive number of hours under this ruling will not necessarily have to repeat courses but might be required to take additional hours as electives to meet general graduation requirements.

Non-Regionally Accredited

For students who transfer from non-baccalaureate programs in non-regionally accredited institutions, special regulations also apply.

Occupational work taken from a non-regionally accredited institution presented by a student with an associate degree or equivalent and with a "C" average will be evaluated as stated previously.

There is no provision for the granting of credit, except via proficiency examinations or by individual review by the academic unit the student enters, for students coming from a non-regionally accredited institution without the associate degree or equivalent or with less than a "C" average.

All accepted occupational and technical credit will be examined by the department of the student's intended major to determine its applicability toward meeting degree requirements.

Foreign Schools

All work completed at foreign schools must be evaluated through the Admissions Office. Work is evaluated course by course. Courses must be considered equivalent in content to courses at SIUC before credit can be granted. Non-equivalent credit will be evaluated by the department under question to determine its acceptability. Students who are transferring work from universities outside the U.S.A. are advised to bring with them official and detailed descriptions of those courses.

Undergraduate applicants must submit official transcripts of records from all secondary or middle schools and all universities, colleges, or professional schools attended. Secondary school records are not required from those who have earned a bachelor's degree or the equivalent thereof and are applying to the graduate school. Records must list subjects taken each year, along with the grades or marks received. Each transcript must include a complete list of all courses taken at that institution, the number of weeks and the number of hours per week in lecture and laboratory for each subject, and the grade received. There should be included a description of the grading system of each institution attended and, if possible, a statement of the student's scholastic rank in his or her graduating class.

Extension, Correspondence, Pass/Fail, Advance Standing, Proficiency

Work taken by extension or correspondence at regionally accredited institutions is accepted unconditionally toward the baccalaureate degree. No more than 30 hours may be in correspondence work. Correspondence work must carry a "C" or better.

"D" Work

Hours of "D" will be accepted under the same conditions as all other credits except for correspondence work as above.

Military Experience

Credit for military experience may be granted as follows:

Service of one year or more and honorable discharge allows six smester hours including 2 in physical education, 2 in health education, and 2 in aerospace studies.

Service of six months to a year allows 2 hours in aerospace studies only.

Service of less than six months allows no credit.

Credit will be accepted for DANTES courses within the limitations enforced for extension and correspondence work. No credit is allowed for college-level GED tests. In evaluating credit possibilities based upon formal service-school training programs, the recommendations of the American Council on Education as set forth in the U.S. Government bulletin, Guide to the Evaluation of Educational Experiences in the Armed Forces, are followed. In order to receive credit for military service, veterans must present a copy of discharge or separation papers to the Office of Admissions and Records.

Preparatory or Developmental Courses

Grades and credit for preparatory or developmental courses will not be used for evaluation purposes.

Repeating Courses and the G.P.A.

For both admission and evaluation purposes grades earned in repeated course work will be averaged.

The University does not calculate an entering transfer grade point average; rather, a transfer's GPA is based solely on work taken at this University.

PRE-PROFESSIONAL PROGRAMS

A program of study called pre-professional does not lead to a degree at SIUC. Pre-professional students who will be on campus longer than two years should enroll as double majors and enter the college which grants a degree in the second major. Students without an additional major will be enrolled in the College of Liberal Arts (pre-law and pre-theology majors), General Academic Programs (pre-nursing majors), or College of Science (other health career majors). Pre-professional programs are available in the following areas:

Dentistry (3 or 4 years)
Law (3 or 4 years)
Medicine (including Osteopathic) (3 or 4 years)
Nursing (3 or 4 semesters)
Optometry (3 to 4 years)
Pharmacy (1 or 2 years)
Podiatry (3 to 4 years)*
Theology (2 to 4 years)
Veterinary Medicine (3 or 4 years)

In addition to these pre-professional programs, the University offers professional curricula in dentistry (Edwardsville), engineering, law, medicine, and nursing (Edwardsville).

Pre-professional students may, subject to certain conditions, obtain a bachelor's degree after three years of work (90 semester hours) at SIUC plus one or more years of work in a professional school. During the three years at SIUC, the students must complete all requirements (other than elective hours) for the particular bachelor's degrees they are seeking.

In some cases students may complete requirements for a major at the professional school, but this is permitted only upon the prior approval of the appropriate divisional head. Also, there needs to be completion of at least one year of professional work with acceptable grades in an accredited dental, law, medical, osteopathic medical, or veterinary school.

In all cases, SIUC graduation requirements must be met. Students must make the decision to seek a bachelor's degree before entering the professional school so that questions can be clarified early.

Students should be aware that the Career Planning and Placement Center schedules aptitude and/or admission tests for some professions; pre-registration is necessary for these tests.

*Recommended program not listed.

GENERAL ACADEMIC PROGRAMS

Generally concerned with the freshman and sophomore years, General Academic Programs offers academic support programs designed to enhance opportunities for success for all its students.

General Studies

The general education requirements are satisfied through the General Studies program.

The student is required to have a total of 45 hours in the five areas of General Studies. There is considerable flexibility in the program and the transfer student should have little difficulty in meeting the General Studies requirements.

A student who graduates with an associate degree in a baccalaureate-oriented program from a Class I Illinois two-year institution, or one regionally accredited, is considered to have met the General Studies requirements.

Pre-Major Advisement Center

Pre-Major Advisement is the academic home for all students who wish to explore one, two, or several major fields before choosing their career goals. The Pre-Major Advisement Center provides each student with an experienced academic advisor who knows the requirements for all major programs and who will offer assistance in selecting an appropriate course of study.

University Honors Program

The University Honors Program is designed to enable academically talented students to profit from an association with each other; to achieve maximum flexibility within the framework of the general University curriculum; and to take fullest advantage of the talents and resources in the University.

Inquiries about the program should be addressed to the Director of Honors Opportunities, General Academic Programs.

Special Major

A student whose academic needs are not met by existing baccalaureate programs may arrange a special undergraduate degree program in lieu of a standard curriculum. For guidelines inquire at the office of the Dean of General Academic Programs.

University Studies Program

The University Studies Degree Program exists for those students who wish to take a broader approach to their education by not specializing. Students may work toward either a Bachelor of Arts or Bachelor of Science degree in University Studies.

Students interested in the University Studies Degree Program may pick up the guidelines in the Pre-Major Advisement Center. After ascertaining eligibility for the program the student should then consult with the University Studies advisor.

Center for Basic Skills

The Center for Basic Skills is designed to enhance success for students deficient in basic skills but who demonstrate the potential for college work, and to offer services to students interested in improving their reading, writing and/or mathematics skills. The Center offers courses in the basic skill areas of reading, writing, and mathematics. It also offers individualized instruction and tutoring in these areas. Diagnostic testing is available to assist students in analyzing their basic skills competency. Interested students should direct their inquiries to the Director of the Center for Basic Skills.

Special Supportive Services

This program is designed for students with academic potential who are from indigent, culturally and economically disadvantaged backgrounds to provide an academic support system. The identification process focuses on modified admissions criteria that emphasize motivation and require a personal interview to be admitted. The specialized services offered through the program include, but are not limited to, providing: (1) personal and career counseling and guidance; (2) curricular and instructional methods in special classes that will enable the participants to complete required and prerequisite courses in a reasonable period of time; (3) a comprehensive tutorial program that will afford program participants an opportunity to study at Southern Illinois University at Carbondale; and (4) other special services that are consistent with the goal of recruiting, retaining, and graduating the target populaton.

Eligible participants must be citizens of the United States and conform economically to federal low-income standards unless they are physically handicapped or speak limited English.

AEROSPACE STUDIES (AFROTC)

The United States Air Force offers "Aerospace Studies" as a voluntary course program which leads to a commission as an Air Force officer following graduation from the university. All cadets are expected to maintain a satisfactory grade point average while in the program and must be able to give evidence of a bona fide baccalaureate degree from the university as a minimum toward meeting the commissioning requirements. The program is divided into two parts: The General Military Course (GMC) for Freshmen and Sophomores, and the Professional Officer Course (POC) for Juniors and Seniors.

General Military Course (GMC)

As the name implies, this portion is "General" in nature. Uniforms are provided, classes are given, and the cadets are under no obligation to the Government. Upon the successful completion of the Sophomore requirements, cadets may voluntarily attend a four week field training course during the summer at an Air Force Base in order to qualify for entry into the Professional Officer Course.

Professional Officer Course (POC)

Acceptance into the last two years of the program (POC) is competitive. It requires the successful completion of a physical examination and of the Air Force Officer Qualifying Test (AFOQT). Newly-entering students at this level (AS 300/400) who have not gone through the General Military Course for freshmen and sophomores are also required to attend a six week field training course during the summer--this is normally the summer following the successful completion of their sophomore year. Such students and graduate students should contact the SIUC AFROTC regarding exceptions to the rule.

Obligations

The GMC cadet is not obligated at any time. Cadets entering the POC must decide whether or not they will accept a commission into the United States Air Force following graduation. If these conditions are accepted, then the POC does incur a military obligation.

Payments: The GMC cadets receive no payments other than that received while in field training at the end of their sophomore year. The POC cadets receive a monthly tax-free subsistence allowance (call AFROTC for the current amount) and are also paid for their field training activities.

Scholarships: The Air Force ROTC four-, three-, and two-year scholarships are available to qualified cadets. The Illinois State ROTC Scholarship is available to qualified students enrolled/accepted in Air Force ROTC at SIUC.

Veterans Commissioning Program

Qualified enlisted personnel enrolled in an SIUC resident center may enter the two-year (POC) AFROTC program at Carbondale. Enlistees must meet the following criteria: (1) Graduate within two years of entry in AFROTC at SIUC (full-time status); (2) U.S. citizen; (3) Under 33 years of age; (4) Have a minimum of 180 days of active duty; (5) Have qualifying scores on the AFOQT; (6) Be able to attain an honorable discharge with a favorable reenlistment code; (7) Have a qualifying physical examination; (8) Process successfully through your nearest AFROTC detachment. Points of clarification for this program may be addressed by mail or phone to the Carbondale AFROTC Building. The Veterans Commissioning Program for AFROTC is available to all services within the Department of Defense (Army, Navy, Air Force, Marines).

Special Note to Counselors:

This program is available to all majors. We do, however, have a special need for Engineering, Mathematics, Chemistry, Computer Science, and Physics Majors.

ARMY MILITARY SCIENCE (ARMY ROTC)

Army Military Science Studies is a voluntary course sequence leading to a commission as an officer in the United States Army (active army, army reserves, or national guard). Students who complete the advanced course of studies six or more months prior to attaining a bachelor's degree, reservists and guardsmen participating in the simultaneous membership program, and students with guaranteed reserve forces duty can be commissioned in the United Staes Army Reserve or National Guard prior to graduating through the early commissioning program. Students entering active duty as reserve of regular Army officers must have a bachelor's degree. All students must meet University academic requirements and maintain satisfactory academic progress to enter or remain in the ROTC program. Enrollment in the basic course (freshman and sophomore years) is unrestricted and carries no military obligation.

Acceptance into the advanced course (junior and senior years, 300-level) is contingent on meeting academic, basic course, physical, age, test score (ACT/SAT or Cadet Evaluation Battery), citizenship prerequisites. Students may enter the advanced course anytime prerequisites are met regardless of their academic year in school. Students studying in any field of study at Southern Illinois University at Carbondale are eligible to enter the Army Military Science program. Students on Army ROTC scholarship and students in the advanced course do incur a military obligation. The nature of the obligation varies depending on whether the student is on scholarship, is receiving an early commission in the National Guard or Reserves, or goes on active duty. All Army Military Science scholarships and advanced course students are paid a monthly tax free subsistence allowance.

Any student, graduate or undergraduate, with at least two academic years remaining at the University, may participate in the advanced program. Students completing a six-week basic leadership practicum and veterans, students completing the basic course, and National Guard and United States Army Reserve personnel may enter the advanced course without completing the basic course. Advance course students attend a six-week advanced camp between their first and second years of their advanced course. This training is conducted at an army post. Students are paid travel pay to and from camp, furnished room and board, and paid while at camp.

Freshman and sophomore students enrolled in the four-year program are eligible to compete for Army Military Science scholarships for one, two, and three years. These scholarships pay full tuition, fees, books, and a $100 per month subsistence allowance. Any Southern Illinois University at Carbondale student who has at least two academic years of school remaining and who can meet advanced course prerequisites may compete for any Army ROTC scholarship. Illinois residents, who are enrolled in ROTC, can compete for state Army ROTC scholarships, which pay tuition and other selected expenses.

In addition to courses offered for academic credit, the Army Military Science program sponsors extracurricular activities. The Ranger Company and Color Guard is open to all Army ROTC students and the Pershing Rifles, a national honorary society, is open to selected Army Military Science cadets.

SCHOOL OF AGRICULTURE

Majors in the School of Agriculture at SIUC have a new look! Traditionally agriculture majors were almost exclusively farm-reared boys, but the current agricultural student body is not limited to persons from farms nor to men. Urban youth who are concerned about ecology, and improving the environment, about increasingly imminent world-wide food shortage, also find relevance and meaningfulness in curricula in agriculture and forestry. Also, women, from both rural and urban backgrounds, are joining the agriculture and forestry student ranks in rapidly increasing numbers, and now comprise 30 percent of the undergraduate enrollment. Women and other minority group graduates enjoy very favorable employment opportunities in agriculture.

The curricula of the five departments of the School of Agriculture which are presented on the following pages provide opportunity for students with a wide range of interests and abilities in various combinations of the physical, biological, and social sciences to learn to apply these basic sciences in helping to solve food, fiber, environmental and ecological problems--whether these problems are found in the local community, state or nation, or in an international or global context. Persons trained in agriculture are needed and they can serve mankind as they satisfy themselves. The spectrum of career opportunities for agriculture graduates ranges from the rural producer, through the many processing and distributing occupations, to those who provide services to the agricultural industry.

FACILITIES: The offices, classrooms and laboratories of the School of Agriculture are located in the Agriculture Building. Additional SIU-owned facilities which are devoted to teaching and research in the School of Agriculture include nearly 2,000 acres of farm and timber land, 15,575 square feet of greenhouse space, and a special center devoted to each of six species of livestock.

ACCREDITATION: North Central Association of Colleges and Secondary Schools.

DEGREE OFFERED: Bachelor of Science.

MEMBERSHIP: National Association of State Universities and Land-Grant Colleges.

GRADUATE PROGRAMS: The School of Agriculture has programs leading toward the Master of Science degree. Many of the programs are mentioned in this section, but there are additional options, available only at the graduate level. For more information consult with School of Agriculture, the Graduate School, or the Graduate Catalog.

ORGANIZATIONS: Scholastic and Professional Honoraries: Alpha Zeta (agriculture), Pi Alpha Xi (floriculture and ornamental horticulture), and Xi Sigma Pi (forestry). Special Interests: Alpha Gamma Rho Chapter. Departmental: Agricultural Mechanization Club; Agriculture Economics Club; Agriculture Industries Graduate Student Club; Agriculture Student Advisory Council; Block and Bridle Club; Forestry Club; Plant and Soil Science Club; Society of American Foresters Student Club; Dairy, Horticulture, Livestock, Poultry, and Soil Judging Teams; and Collegiate FFA.

TRANSFER STUDENTS: If agriculture is offered for transfer credit at a regionally accredited associate degree granting college, introductory courses in the various fields may be accepted at SIUC in lieu of equivalent courses. Also, approximately one-half of the credit for occupational and technical courses may be accepted to apply as free electives or agricultural electives. For transfer students wishing to pursue a concentration in one of the agricultural or forestry areas, courses prior to entering SIUC should include physical and biological sciences, social scences, and humanities. In addition, a course in speech and appropriate sequences in English composition and college algebra should be included. All majors within the School of Agriculture must have work in: mathematics; botany or zoology or biology; chemistry; economics; and speech.

Graduates of occupationally oriented programs should inquire into the possibilities of entering the School of Agriculture under the Capstone Project. This special program is explained in another section of this handbook.

FOR FURTHER INFORMATION:

Chief Academic Advisor
School of Agriculture
Phone 618-453-2469

Chairman of (state major)
School of Agriculture

Admissions Office
Woody Hall
Phone 618-453-4381

Southern Illinois University at Carbondale
Carbondale, Illinois 62901

COLLEGE OF BUSINESS AND ADMINISTRATION

The College of Business and Administration, located in the General Classrooms Building, aims to prepare students to perform successfully in business and other organizations functioning within a changing social, economic, and political environment. Study provides the student with fundamental principles and practices of organizational behavior and allows the mastering of knowledge and skills for effective management. The curriculum provides a broad base for understanding business while simultaneously allowing in-depth study within an area of concentration. Students find that the professional education they receive in the college is desired by business, governmental units, and other public institutions. The advanced curriculum, computer experience, and intern programs provide students not only with a meaningful education but with a means of relating that education to organizations and commerce.

ACCREDITATION: American Assembly of Collegiate Schools of Business (AACBS), and North Central Association of Colleges and Secondary Schools.

DEGREES OFFERED: Bachelor of Science.

- Accounting
- Administrative Science
  - Management
  - Decision Sciences
- Business and Administration
- Business Economics
- Finance
  - Financial Management
  - Financial Institutions
- Marketing

GRADUATE PROGRAM: The College of Business and Administration offers the Master of Business Administration (M.B.A.), Master of Accountancy, and Doctor of Business Administration[1] degrees.

ORGANIZATIONS: Scholastic and Professional Honoraries: Alpha Kappa Psi (Business), Beta Alpha Psi (Accounting), Beta Gamma Sigma (Business), Phi Gamma Nu (Business), Pi Sigma Epsilon (Marketing), and the Society for Advancement of Management (SAM) and American Marketing Association (AMA). Departmental: Concerned Professional Accountants, American Marketing Association, College of Business and Administration Student Council.

SPECIAL MAJOR: A student who feels that his or her special interests and/or needs cannot be met by any of the existing College of Business and Administration or University majors may participate in designing his or her own program under the Special Major option. The student's program, which must be approved by the Dean of the College of Business and Administration and the Dean of General Academic Programs, should be coherent and unified and must have as a sponsor a member of the teaching faculty of the College of Business and Administration. Approval of such a program does not exempt a student from University requirements. Forty to sixty percent of the course work must be devoted to courses with a College of Business and Administration prefix; the remainder, to courses carrying non-business prefixes.

For further information, contact the Assistant Dean, Undergraduate Programs, College of Business and Administration.

TRANSFER STUDENTS: The College of Business and Administration will accept college level credit earned in business and economics courses from any accredited two- or four-year institution toward the 120 semester hours required for graduation. However, if such courses are offered at the lower division (freshman and sophomore) level at the institution where taken, only courses shown below will be accepted as substitutions for college required courses.

Courses	Semester Hours
Principles of accounting	6.0
Cost accounting	3.0
Economic principles	6.0
Business/economic statistics (where college algebra is a prerequisite)	3.0
Basic computer course[2]	3.0

Additionally, up to 6.0 semester hours of business law completed at the lower division level are acceptable in satisfaction of department requirements, in those programs where these courses are required. Nothing in this statement abridges a student's right to satisfy graduation requirements by proficiency examination.

[1] DBA expected to be approved for Fall 1980.

[2] Computer coursework completed at other universities and colleges will be accepted as transfer credit for the College of Business and Administration core computer requirement if that course is designed to teach one and only one of the following languages: Fortran, Basic, Cobal, RPG, PL1, and Algol; courses that survey numerous languages are not acceptable. Further, coursework with emphasis on unit record or data processing equipment will not be considered equivalent to the college's computing requirement. Acceptable coursework should have a one-language base and present the student with advanced programming concepts, e.g., loops, arrays, etc.

COLLEGE OF EDUCATION

Preparation of teachers of all subjects taught in the public schools from pre-school through high school is the special function of the College of Education. In its graduate offerings, however, it broadens its efforts to include professional work for prospective college teachers and several specializations in school administration and supervision.

The College of Education, housed in the Wham Education Building, is the oldest unit of the University, which was originally chartered as Southern Illinois Normal University.

TEACHER EDUCATION PROGRAM APPROVAL: Each of the specializations in teacher education noted in this Counselor's Advisement Catalog has continuing approval from the Illinois State Teacher Certification Board.

ACCREDITATION: North Central Association of Colleges and Secondary Schools, the National Council for Accreditation of Teacher Education, and the United States Office of Education.

DEGREES OFFERED: Bachelor of Science, Bachelor of Music Education.

GRADUATE PROGRAMS: Students can continue on the graduate level of the above programs and in some areas not listed. For more specific information a student should consult with the College of Education and the Graduate School, and read the Graduate Catalog.

ORGANIZATIONS: Scholastic and Professional Honoraries: Kappa Delta Pi, Phi Delta Kappa, and Pi Lambda Theta. Departmental: Association of Childhood Education, Council for Exceptional Children, Men's P.E. majors, Recreation Club, Student Education Association, Women in Education, Women's Professional P.E., and Women's Recreation Association.

TRANSFER STUDENTS: Students preparing to teach should familiarize themselves with all the specific requirements and prerequisites for teacher certification. Also, admission to the University or to an academic unit does not admit a student to the formal Teacher Education Program (see Transfer Admissions-Eligibility).

One-hundred clock hours of supervised pre-student teaching clinical experiences are required of all Teacher Education candidates. These hours are included in Education 201, 301, 302, 303, and 312, and are primarily planned for the junior and senior professional level of the program. Articulation of courses with Illinois community colleges provides a mechanism for some of the clock hours to be obtained prior to entering SIUC, i.e., equivalents of Education 201, 301, and 303. Prospective students are encouraged to check for articulation of these courses prior to enrollment in similar community college courses. Further information on articulation of courses may be obtained from the Coordinator of Teacher Education Services, College of Education, Wham Education Building.

Students wanting to transfer occupational credit into the College of Education should consult a program coordinator in the Department of Vocational Education Studies to determine possible applicability of this credit toward meeting degree requirements.

FOR FURTHER INFORMATION:

Coordinator of Teacher Education Services
College of Education
Phone 618-536-2329

Admissions Office
Woody Hall
Phone 618-453-4381

Southern Illinois University at Carbondale
Carbondale, Illinois 62901

SECONDARY EDUCATION

Students who elect to pursue a Bachelor of Science degree in the College of Education, for purposes of preparing to teach in junior or senior high schools, should select academic majors and minors from the areas included in the listing below. Included in the column headed Major are those areas for which Southern Illinois University at Carbondale has approval from the State of Illinois Office of Education and from the State Teacher Certification Board.

Teaching Area	Major	Minor[2]
Agricultural Education	X	
Art	X	
Biological Sciences	X	X
Black American Studies		X
Botany[1]	X	X
Business Education	X	X
Chemistry	X	X
Earth Science		X
Economics	X	X
Educational Media		X
English	X	X
Foreign Languages	X	X
Geography	X	X
Health Education[3]	X	
History	X	X
Home Economics Education	X	
Language Arts and Social Studies	X	
Mathematics	X	X
Microbiology		X
Music	X	X
Occupational Education (Industrial Arts and Trades and Industries)	X	
Philosophy		X
Physical Education	X	X
Physics	X	X
Physiology		X
Political Science	X	X
Psychology		X
Social Studies	X	
Sociology		X
Speech Communication	X	X
Theater		X
Zoology[1]	X	X

[1]A student with a major in botany or zoology should have a minor in the other in order to meet certification standards for teaching biology at the high school level.

[2]All minors used for certification purposes must include a minimum of 18 semester hours.

[3]Driver Education is offered for certification purposes in the Department of Health Education.

Coordinator of Teacher Education Services
Telephone - 618-536-2329
Location - Wham Building, Room 108

COLLEGE OF ENGINEERING AND TECHNOLOGY

The curricula in the College of Engineering and Technology are designed to provide instruction and to stimulate research. Attention is given to theories and their applications, and to creative and practical aspects, in varying degrees, commensurate with the objectives of the particular program.

Offices and most of the facilities of the College of Engineering and Technology are located in the engineering and technology complex by the Lake-on-the-Campus.

ACCREDITATION: North Central Association of Colleges and Secondary Schools; Accreditation Board for Engineering and Technology (ABET), formerly known as the Engineers' Council for Professional Development (ECPD), for Engineering and Engineering Technology; National Association of Industrial Technology for Industrial Technology.

DEGREES OFFERED: Bachelor of Science - Engineering
Bachelor of Science - Engineering Technology
Bachelor of Science - Industrial Technology

GRADUATE PROGRAMS: Master's degree work is available in a number of specialties in engineering. For specific information concerning advanced degree work a student should consult the College of Engineering and Technology, the Graduate School and the Graduate Catalog.

ORGANIZATIONS: Organizations in which students in the College of Engineering and Technology may participate--the student chapters of various professional and technical societies. Engineering students with high scholastic achievement may be recognized through invitation for membership to the SIUC chapter of Tau Beta Pi, a national engineering honor society.

TRANSFER STUDENTS: Students should note that the minimum mathematics requirement for baccalaureate degrees in the College of Engineering and Technology will vary, depending upon the curriculum followed. Prospective transfer students should study the following pages carefully.

Students planning to transfer occupational credit toward a degree in industrial technology should consult with the Department of Technology concerning the applicability of such credit toward meeting degree requirements.

Graduates of occupationally-oriented programs should inquire into the possibilities of entering the College of Engineering and Technology under the Capstone Project. Requirements of this special program are mentioned in another section of this handbook.

FOR FURTHER INFORMATION:

Dean
College of Engineering and Technology
Phone 618-453-4321

Admissions Office
Woody Hall
Phone 618-453-4381

Southern Illinois University at Carbondale
Carbondale, Illinois 62901

COLLEGE OF COMMUNICATIONS AND FINE ARTS

The College of Communications and Fine Arts offers the following majors leading to the Bachelor of Science degree:

Journalism
Cinema and Photography
Radio and Television
Speech Communications
Speech Pathology and Audiology
Theater

The Bachelor of Arts degree is offered for a major in the School of Art. The Bachelor of Music degree is offered for a major in the School of Music.

In the communications fields listed above a "C" average in GSD 101 English composition or an approved equivalent is required.

Students interested in studio or studio crafts concentration in the School of Art should consult the Chief Academic Advisor for the School of Art for eligibility requirements for those specializations.

COLLEGE OF LIBERAL ARTS

The College of Liberal Arts offers the following majors leading to the Bachelor of Arts and Bachelor of Science degrees. Minors are possible in most of these areas. For exceptions, see next chapter.

African Studies[1]
Anthropology
Asian Studies[1]
Comparative Literature[1]
Computer Science
Earth Science[1]
Economics
English
Foreign Languages and Literatures
  Chinese[1]
Classical Civilization[1]
Classics
Classical Studies
  East Asian Civilizations[1]
  French
  German
  Greek[1]
  Japanese[1]
  Latin[1]
  Russian
  Spanish
Geography
History
Latin-American Studies
Linguistics
Mathematics
Music
Philosophy
Political Science
Psychology
Religious Studies
Sociology
Speech Communication[2]
Uncommon Languages[1]

[1]Minor only.

[2]Liberal Arts major, not professional major.

College Requirements Effective Fall, 1978

Students beginning college anywhere Fall 1978 must satisfy the following requirements:

1. University requirements including those relating to General Studies, residency, total hours, and grade point average.

2. Successful completion of requirements in an approved major in the College of Liberal Arts.

3. At least 40 hours of course work at the 300- or 400-level.

4. The Liberal Arts student must complete one year or not less than six semester hours of a foreign language. In addition to General Studies requirements, he or she must complete one course in either mathematics or computer science and one course in English composition. General Studies courses may be used to satisfy the latter requirement only with prior approval of the dean.

Students should consult with an advisor at an early stage in their college career regarding any problems related to these requirements. Similarly, those planning to attend schools of law, health-related or other fields must plan their curriculum carefully and choose courses of depth and rigor. They should be in close contact with their academic and departmental advisors.

COLLEGE OF SCIENCE

The College of Science offers majors, and in most cases minors, leading to the Bachelor of Arts and Bachelor of Science degrees in the following fields of study:

Biological Sciences
Botany
Chemistry
Engineering Biophysics
Geology
Mathematics
Microbiology
Physics
Physiology
Zoology

A minor in Earth Sciences is also offered.

Pre-professional programs are also offered in the following areas:

Dentistry
Medicine
Optometry
Osteopathy
Pharmacy
Veterinary Medicine

Academic Requirements:

None of these general academic requirements may be satisfied by taking the required courses on a Pass/Fail basis.

BIOLOGICAL SCIENCES: Six semester hours in courses offered by the biological sciences departments in the College with the proviso that this requirement cannot be satisfied in whole or in part by General Studies courses, but may be substituted for the latter in meeting the General Studies requirements.

FOREIGN LANGUAGE: The foreign language requirement can be met by one of the following: (a) passing an 8-hour, 100-level sequence in one language or a 5-hour review course in French or Spanish; (b) earning 8 hours of 100-level credit in one language by proficiency examination; or (c) completing three years of one language in high school with no grade lower than C.

A student whose native language is not English may use the native language to satisfy part or all of the science foreign language requirement at Southern Illinois University at Carbondale. If the language is presently taught at SIUC, academic credit may be earned. If the language is not presently taught at SIUC, no credit is given, but partial or full satisfaction of the science foreign language requirement may be granted if the student's major department so recommends. A student whose native language is English but who has learned another language not taught at SIUC may qualify without credit for partial or full satisfaction of the science foreign language requirement under certain circumstances, including formal recommendation by the student's major department and availability of an examiner and examination materials within the Department of Foreign Languages and Literatures. For information, the student should consult the College of Science advisement center.

MATHEMATICS: The mathematics requirement can be met by (a) passing Mathematics 110a,b (3,2) or Mathematics 111 (5) or its equivalent or Mathematics 140 (4), or (b) completing three years of high school mathematics with no grade lower than C and achieving a score on the University's Mathematics Placement Test which allows the student to enroll directly into Mathematics 150 (4).

PHYSICAL SCIENCES: Six semester hours in courses offered by the physical science departments of the College, with the proviso that the requirement cannot be satisfied in whole or in part by General Studies courses, but may be substituted for the latter in meeting the General Studies requirements.

GENERAL REQUIREMENTS: At least 40 hours of the student's 120 hours for graduation must be at the 300 or 400 level. The total may include transfer credit for courses judged by the department involved to be equivalent to its upper division courses. For transfer students submitting only the last year in residence, at least 24 of these must be at the 300 or 400 level.

COLLEGE OF HUMAN RESOURCES

The College of Human Resources offers the following majors leading to the Bachelor of Science degree:

Administration of Justice
Child and Family
Clothing and Textiles
Family Economics and Management
Food and Nutrition
Interior Design
Social Welfare

The College also offers a Design major leading to a Bachelor of Arts degree.

No specific unit requirements. Consult degree programs in catalog and handbook for specific degree requirements.

SCHOOL OF TECHNICAL CAREERS

B.S. in Technical Careers
Allied Health Careers Specialties
Architectural Technology
Associate Degree in Nursing
Automotive Technology
Aviation Technology
Avionics Technology
Commercial Graphics--Design
Commercial Graphics--Production
Construction Technology--Building
Correctional Services
Dental Hygiene
Dental Laboratory Technology
Electronic Data Processing
Electronics Technology
Law Enforcement
Photographic and Audio-Visual Technology
Mortuary Science and Funeral Service
Physical Therapist Assistant
Secretarial and Office Specialties
Tool and Manufacturing Technology (Numerical Control)

The School of Technical Careers, established in 1973, provides both two-year college-level programs and a unique baccalaureate program in technical careers. The associate degree programs qualify students for employment at the semi-professional and technical level in industry, the allied health occupations, and business. A combination of technical courses and general education courses is included in each program to provide a comprehensive preparation for occupational competence.

Scientific and technical changes have increased the possibilities for employment at the technician's level. For every professional person, industry and business require two to seven properly trained technicians.

The School of Technical Careers occupies facilities on the Carbondale campus and on the Carterville campus nine miles east of Carbondale on Old Route 13. Facilities for the aviation technology program are located at the Southern Illinois Airport, four miles west of Carbondale.

Accreditation: North Central Association of Colleges and Secondary Schools; Council on Dental Education of the American Dental Association; American Board of Funeral Service Educators.

Degrees Offered: Bachelor of Science, Associate in Art, and Associate in Applied Science.

Organizations

Alpha Eta Rho (International Aviation Fraternity), Phi Beta Lambda (International), Sigma Phi Sigma (Mortuary Science), STC Electronics Association, Delta Tau-Dental Lab, Junior SIU American Dental Hygiene Association, and Sigma Phi Alpha (Honorary Dental Hygiene Society).

Transfer Students

Transfer credit is evaluated for acceptance towards University and General Studies (general education) requirements by the Office of Admissions and Records after an admission decision has been made. The evaluation toward satisfying of specific curriculum requirements is done by the department or agency directing the specific curriculum.

The General Studies program at STC includes courses in the social studies (economics, government, and psychology); in the physical sciences (physics, chemistry, and mathematics); and in oral and written communication (speech, English composition, business correspondence, and technical writing). These courses are identical in most cases to those taught on the Carbondale campus, and credit earned in them is transferable if the STC associate degree student decides to continue beyond the two-year program.

For Further Information

Dean
School of Technical Careers
Phone 618-536-6682

Office of Admissions and Records
Woody Hall
Phone 618-453-4381

Southern Illinois University at Carbondale
Carbondale, Illinois 62901

THE GRADUATE SCHOOL

The primary concern of the Graduate School is graduate instruction and research at Southern Illinois University at Carbondale. The Graduate School therefore plays an essential role in development of instructional and research programs, in acquisition of funds, and in procurement of facilities necessary to encourage and support research by members of its scholarly community. Through students who meet the Graduate School's high standards of achievement of completing advanced courses of study and through students and faculty members who achieve significant results in their research, the Graduate School makes its contribution to the public welfare of the region, the state, the nation, and a number of other countries.

The Graduate School offers master's degrees through 64 programs, the specialist degree in 4 areas, and the doctoral degree through 21 programs. Under the leadership of a graduate faculty of over 900 members, research and study by over 3,300 graduate students is promoted. In addition, the Schools of Law and Medicine provide graduate students with excellent opportunities to work with faculty members and students in those professions.

Master's degrees are available in the major fields listed below:

- Accountancy
- Administration of Justice
- Agribusiness Economics
- Agricultural Education & Mechanization
- Animal Industries
- Anthropology
- Art
- Behavior Modification
- Biological Sciences
- Botany
- Business Administration
- Business Education
- Chemistry
- Cinema and Photography
- Community Development
- Computer Science
- Early Childhood Education
- Economics
- Educational Administration
- Educational Media
- Elementary Education
- Engineering
- Engineering Biophysics
- English
- English as a Foreign Language
- Environmental Design
- Foreign Languages & Literatures
  - French
  - German
  - Spanish
- Forestry
- Geography
- Geology
- Guidance & Educational Psychology
- Health Education
- Higher Education
- History
- Home Economics Education
- Human Development
- Journalism
- Latin American Studies
- Linguistics
- Mathematics
- Microbiology
- Mining Engineering
- Music
- Occupational Education
- Philosophy
- Physical Education
- Physics
- Physiology
- Plant and Soil Science
- Political Science
- Psychology
- Public Affairs
- Public Visual Communications
- Recreation
- Rehabilitation Administration & Services
- Rehabilitation Counseling
- Secondary Education
- Sociology
- Special Education
- Speech Communication
- Speech Pathology & Audiology
- Statistics
- Theater
- Zoology

Specialist degree programs are available in the fields listed below:

- Educational Administration
- Elementary Education
- Guidance & Educational Psychology
- Secondary Education

Doctor's degrees are available in the fields listed below:

- Anthropology
- Botany
- Business Administration[1]
- Chemistry
- Economics
- Education
- English
- Geography
- Historical Studies
- Journalism
- Mathematics
- Microbiology
- Molecular Science
- Philosophy
- Physiology
- Political Science
- Psychology
- Rehabilitation-Doctor of Rehabilitation
- Sociology
- Speech Communication/Theater
- Speech Pathology & Audiology
- Zoology

[1] DBA is expected to be approved for Fall 1980.

The Graduate School, as a part of Southern Illinois University at Carbondale, is fully accredited by the North Central Association of Colleges and Secondary Schools, and by various other professional and academic accrediting organizations. Information on the various graduate programs and on admission to the Graduate School can be obtained by writing Graduate School, Southern Illinois University, Carbondale, Illinois 62901.
Phone: 618-536-7791.

SCHOOL OF LAW

In response to the need for an additional legal education resource within the state, the Illinois Board of Higher Education's Master Plan Phase III, issued in May, 1971, recommended establishment of a law school at Carbondale. An appropriation for this purpose was passed by the Illinois legislature in June, 1972. The University promptly employed a dean, and the school admitted its first class in the fall of 1973.

The school offers a three-year program leading to the Juris Doctor (J.D.) degree. The school received provisional accreditation from the Section on Legal Education of the American Bar Association during its first year of operation, so that all students enrolled are eligible to take state bar examinations required for admission to the bar.

Two buildings and part of a third have been remodeled to provide classroom, library, and office space for the School of Law pending completion of a permanent building. Other available facilities include an adequate law library collection with a LEXIS computer terminal and a broadly-based University with extensive law-related graduate divisions and other academic units. In cooperation with the SIUC College of Business and Administration, the School of Law offers a joint MBA-JD degree program.

The faculty and student body of the school are of the highest quality, and its curriculum is designed to inculcate fundamental legal concepts and skills which every lawyer must have and which are the hallmarks of the profession of the law. In addition to the Socratic-casebook method, other teaching methods, including clinical, are utilized as the subject matter requires. The School of Law catalog can be obtained by writing to University Graphics. Information on admission to the SIUC Law School can be obtained by writing to:

Associate Dean, Admissions
School of Law
Southern Illinois University at Carbondale
Carbondale, Illinois 62901

NOTE: Information on undergraduate preparation necessary for schools of law is listed under Pre-law in this text.

SCHOOL OF MEDICINE

Southern Illinois University School of Medicine was established in 1970 in response to a need in Illinois for increased opportunities for education in the health fields and the more encompassing need for improvements in the health care delivery system. To have the broadest impact possible on health care in central and southern Illinois, the school is deeply engaged in training men and women who will become practicing physicians; it emphasizes continuing education; and it is a center of health care planning and expertise.

The first year is conducted on the campus of SIU-Carbondale. Students are instructed in the sciences basic to medicine. The remainder of the program, which leads to the M.D. degree, is increasingly clinical in its emphasis, and is offered in Springfield. This split-campus organization allows the School of Medicine to make full use of available resources in both locations.

Available facilities include the extensive and well-equipped laboratories of Southern Illinois University at Carbondale; the public and private clinical facilities of Carbondale; and St. John's Hospital and Memorial Hospital in Springfield, each of about 700 beds. A new medical school building in Springfield was completed in 1974 in time for the first class transferring from Carbondale. Inquiries on admission should be addressed to:

Committee on Admissions
Southern Illinois University School of Medicine
P.O. Box 3926
Springfield, Illinois 62708

NOTE: Information on undergraduate preparation necessary for schools of medicine is listed under pre-medicine in this text.

ENTRY LEVEL JOB TITLES

WHAT DO I DO WITH A DEGREE IN _____?

The Career Planning and Placement Center at SIUC has compiled a list of titles associated with the first job recent graduates obtained in business, industry or government. We have listed the titles for each non-teaching major.

The list is intended to be used to assist teachers, counselors, faculty members and students faced with the question: "What does one do with a degree in _____?"

The Career Planning and Placement Center hopes that this listing will encourage both counselors and potential SIUC students to seek additional information about career opportunities prior to matriculation and for students to utilize the services of the SIUC Career Planning and Placement Center once they are enrolled.

For additional information, please contact the following placement consultants:

Agriculture	Larry Crouch
Business and Administration	Richard Gray
Communications and Fine Arts	Larry Crouch
Education	Jane Tierney
Engineering	Susan Rehwaldt
Human Resources	Larry Crouch
Liberal Arts	Larry Crouch
School of Technical Careers	Marilyn DeTomasi
Science	Marilyn DeTomasi

Dr. Harvey S. Ideus, Director
Telephone - 618-453-2391
Woody Hall, B-204

ACCOUNTING
College of Business and Administration
(Bachelor of Science)

Dr. Bart A. Basi, Chairperson
Telephone - 618-453-2289
General Classrooms Bldg., Room 232

Accounting is the process of identifying, measuring, and communicating economic information to permit informed judgments and decisions by users of the information. Such information is required and used by parties external to the business and by management within the business.

The curriculum is designed to prepare a student to assume a professional position as a certified public accountant or to join the management team in industry and government. The courses provide a basic understanding of all phases of accounting and permit the student to elect courses to prepare for a particular area of interest.

The Department of Accountancy has a working relationship with several national public accounting firms with whom the department arranges for student work experience during the spring semester of their senior year. Students work off campus in the field of accounting under the direction of the cooperating public accounting firms. While most of the work assignments are in the St. Louis and Chicago areas, some student have been assigned, at their request, in other geographical districts as far away as New Jersey and Texas. The student receives valuable work experience, a salary, and three hours of university credit under the internship program. Interns are selected by the Department.

First Year		Fall	Spring
GSA	Science (select)[1]	3	3
*GSB 202	Introduction to Psychology	-	3
GSC	Humanities (select)[1]	6	3
GSD 101 & 117, 118 or 119	English Composition & Writing (select)[1]	3	2
*Math 116-5 or 139-3	Finite Mathematics & Algebra	3 (5)	-
*Math 117 or 140	Finite Mathematics & Calculus or Short Course in Calculus	-	4 (5)
		15 (17)	15 (16)

Second Year		Fall	Spring
*Acct 221, 222	Financial, Managerial Accounting	3	3
*ADSC 208	Interpretation of Business Data	4	-
*CS 202 or EDP 217	Intro. to Computer Programming (PL-I) or Computing for Business Admin. (FORTRAN)	-	3
*Econ 214, 215	Economics, Macro, Micro[2]	3	3
GSA	Science (select)[1]	3	-
*GSD 153 or 152	Public Speaking or Interpersonal Communication	2 (3)	-
GSE	Human Health and Well Being (select)[1]	-	2
GS- ---	General Studies Electives	-	4
		15 (16)	15

*Required course for a major in Accounting.

[1]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

[2]Econ 214 or 215 counts toward GSB credit.

Accounting As A Major

Neither minor nor foreign language required.

Graduate degree available: MBA, Masters in Accountancy, DBA.

It is strongly recommended that the courses listed above be completed prior to the junior year. Many of these courses are prerequisites to later requirements.

The Department is recognized by the American Assembly of Collegiate Schools of Business (AACSB).

A 2.000 grade point average is required in SIUC accounting courses for graduation. A "C" or better is required in all prerequisite accounting courses. This does not apply to Accountancy 221, the prerequisite for Accounting 222.

Representative First Job Titles: Accountant-I, Accounting and Fiscal Admin. Career Trainee, Revenue Collection Officer-I, Supervisory Auditor, Grants and Contract Officer, Assistant Controller, Plant Accountant, Retail Controller Trainee, Plant Accounting-Internal Auditor, Junior Systems Analyst, Accounting Auditor, Accountant, Financial Management Trainee, Internal Auditor, Accounting Management Trainee, Property Accountant, Budget Accountant, Systems Accountant.

ADMINISTRATION OF JUSTICE

College of Human Resources
(Bachelor of Science)

Marc Riedel
Divisional Executive Officer
Telephone - 618-453-5701
Faner Building, 4th Floor

The Bachelor of Science degree with a major in Administration of Justice meets the career objectives of students interested in law enforcement, corrections, juvenile services and other roles in social and criminal justice.

Four areas of concentration--Law Enforcement, Correctional Program Services, Correctional Management, and Juvenile Justice and Delinquency Prevention--have been delineated to give a range of choices suitable for most students preparing for careers in a field of criminal justice. The policy of this Center, however, is to fit course requirements to the given student's career objectives if none of these concentrations are appropriate. In such situations, the student will be required to take the core courses, and, under the supervision of his or her advisor, develop an appropriate battery of courses in lieu of one of the four areas of concentration.

Field internship placement is an important element in the Administration of Justice program and internships are encouraged for qualified students.

First Year		Fall	Spring
GSA	Sciences (select)[1]	-	3
GSB 202	Introduction to Psychology	3	-
GSB 203	Sociological Perspective	4	-
GSB 212	Intro. to American Government & Politics	4	-
AJ 200	Introduction to Criminal Behavior*	-	3
GSC 102 or 104	Problems In Philosophy or Moral Decision	-	3
GSE	Human Health and Well Being (select)[1]	1	1
GSD 152 or 153	Interpersonal Communication or Public Speaking	-	2 (3)
GSD 101	English Composition	3	-
GSD 107 or 112 and 113	Math (Statistics suggested)	-	4
		15	16 (17)

Second Year		Fall	Spring
AJ 201	Introduction to Criminal Justice System*	3	-
GSC	Humanities (select)[1]	3	3
GSA	Sciences (select)[1]	3	3
GSD 118	Technical Report Writing	2	-
GSE	Human Health and Well Being (select)[1]	1	1
AJ	Classes from AJ Core or AJ Concentration	-	6
GSA/B/C	Elective	3	-
Elective	Free Elective	-	3
		15	16

*Required courses for a major in Administration of Justice.
[1]To determine what courses may be taken to satisfy the general education requirements, please refer to the section, General Studies. The specific general studies courses listed are highly recommended, not a requirement of the Administration of Justice Department.

The preceeding 2-year outline can be altered to meet the needs and abilities of the students.

Third and Fourth Year
The last two years of a student's program concentrate on specific career or professional objectives. The student must take the Division Requirement of 15 semester hours plus meet the requirements of a chosen concentration from the following: Law Enforcement, Juvenile Justice and Delinquency Prevention, Correctional Program Services, Correctional Management or a concentration specifically designed and agreed upon with the student's faculty advisor to meet the career objectives of the student.

Administration of Justice As A Major
Graduate Degree program available.
No foreign language requirement.

A minor (secondary concentration) is required and is selected in consultation with the student's academic advisor. The student selects 18 hours of courses constituting a systematic sphere of study relevant to his or her interests and needs.

Multi-disciplinary staff with backgrounds in Sociology, Psychology, Education, Law and Rehabilitation provide instruction. Most of the staff also have practical experience in the Criminal Justice System.

Outstanding faculty, nationally recognized program, guest speakers, special programs, international emphasis, and career oriented experience available.

Representative First Job Titles: Crime Investigator, Patrolman, Juvenile Delinquency Studies Specialist, Alcoholism & Drug Addiction Counselor, Delinquency Preventor, Community Planning & Redevelopment Officer, Morale Studies Specialist, Child Care Worker, Penology & Correction Researcher, Probation & Parole Administrator, Rehabilitation & Resettlement Analyst, Social & Behavioral Researcher, Outreach Director, YMCA-YWCA Director & Program Specialist, Prisoner Classification Interviewer, Public Aide, Caseworker.

ADMINISTRATIVE SCIENCES
College of Business and Administration
(Bachelor of Science)

Dr. John R. Schermerhorn
Telephone - 618-453-3307
General Classrooms Bldg, Rm 215

Undergraduate students in the Department of Administrative Sciences may select one of two areas of specialization which lead to the Bachelor of Science degree. Both programs of study emphasize the development of analytical capabilities and decision making skills for application in a wide variet of managerial settings.

The two specialized areas in which a student can choose a course of study are management and decision sciences. Both areas are designed to familiarize the student with current concepts and practices that can be used by managers to improve the performance of organizations and their members.

Approximately 20 percent of the total course work required for graduation is devoted to the administrative sciences specialization. These courses are in addition to the core required of all undergraduates in the College of Business and Administration. Students also are encouraged to extend their specialized academic interests through interdisciplinary course work in such fields as mathematics, computer sciences, sociology, psychology, and other university programs which have an administrative orientation.

Students frequently combine training in another specialty field with a program in administrative sciences in order to prepare themselves to assume managerial responsibility. While most graduates enter positions in business, many find administrative careers in such fields as aviation, corrections, agriculture, recreation, food services, health, government, and higher education.

First Year		Fall	Spring
GSA	Science (select)[1]	3	3
*GSB 202	Introduction to Psychology	-	3
GSC	Humanities (select)[1]	6	3
GSD 101 & 117, 118 or 119	English Composition & Writing (select)[1]	3	2
*Math 116-5 or 139-3	Finite Mathematics and Algebra	3 (5)	-
*Math 117 or 140	Finite Mathematics & Calculus or Short Course in Calculus	-	4 (5)
		15 (17)	15 (16)

Second Year		Fall	Spring
*Acct 221, 222	Financial, Managerial Accounting	3	3
*ADSC 208	Interpretation of Business Data	4	-
*CS 202 or EDP 217	Introduction to Computer Programming (PL1) or Computing for Business Admin. (FORTRAN)	-	3
*Econ 214, 215	Economics, Macro and Micro[2]	3	3
GSA	Science (select)[1]	3	-
*GSD 153 or 152	Public Speaking or Interpersonal Communication	3 (2)	-
GSE	Human Health and Well Being (select)[1]	-	2
GS- ---	General Studies Electives	-	4
		16 (15)	15

*Required course for a major in Administrative Sciences.

[1]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

[2]Econ 214 or 215 counts toward GSB credit.

Administrative Sciences As A Major

Neither minor nor foreign language required.
Graduate degree available: MBA, Masters in Accountancy.

It is strongly recommended that the courses listed above be completed prior to the junior year. Many of these courses are prerequisites to later requirements.

The Department is recognized by the American Assembly of Collegiate Schools of Business (AACSB).

The Society for the Advancement of Management in cooperation with the Department of Administrative Sciences sponsors annually Career Day to acquaint students with opportunities in business and government.

Representative First Job Titles: Budget Administrator, Business Operations Analyst, Benefits Analyst, Community Relations Officer, Employee Relations Officer, Employment Interviewing Officer, Labor Relations Officer, Management Analyst, Manpower Planning Officer, Manpower Resources Studies Officer, Organization Planner, Placement Assistant, Public Opinion Polls Officer, Public Relations Officer, Recruiting Officer, Wage-Salary Administrator, Workman's Compensation Officer, Budget Examiner, Claims and Benefits Examiner, Contract Negotiator, Credit Union Examiner, Management Representative, Management Supervisor.

AGRIBUSINESS ECONOMICS

(Agricultural Economics/Agribusiness)
School of Agriculture
(Bachelor of Science)

Dr. William McD. Herr, Chairperson
Telephone - 618-453-2421
Agriculture Building, Room 226

The Agricultural Economics/Agribusiness curriculum is designed to prepare women and men for attractive careers in agriculture, industries that are related to agriculture, or to continue their professional development by entering graduate school. A few career opportunities include farm credit positions with banks, farm management and operation, grain merchandising, livestock buying and selling, farm supplies, research, public relations, and extension work.

In agricultural economics/agribusiness, courses are offered in the areas of farm management, agribusiness management, farm credit, agricultural prices, agricultural marketing, cooperatives, and agricultural policy.

First Year		Fall	Spring
*GSA 106	Chemistry for Non-Science Majors	-	3
GSA	Physical Sciences[2]	3	-
GSB	Social Science[2]	-	3
GSC	Humanities[2]	-	3
*GSD 101	English Composition	3	-
*GSD 107	Intermediate Algebra[3]	4	-
GSE	Human Health and Well Being[2]	1	1
*ABE 204	Introduction to Agricultural Economics[4]	3	-
Anl	Animal Science	-	3
GSD 118	Technical Report Writing	-	2
		14	15

Second Year		Fall	Spring
*GSA 115	Introductory Biology	3	-
GSB	Social Studies[2]	3	-
GSC	Humanities[2]	3	3
GSD 110	Economic and Business Statistics	-	2
*GSD 153	Public Speaking[5]	-	3
GSE	Human Health and Well Being[2]	1	2
*Econ 214, 215	Economics - Macro, Micro	3	3
	Electives[6]	3	3
		16	16

Third and Fourth Years

The last two years of the agricultural economics/agri-business curriculum are devoted to advanced courses in agricultural economics, agri-business, economics and business to meet the goals and objectives of the study. About 20 hours of free electives are included in the last two years of this curriculum.

*Required courses for a major in Agricultural Economics/Agribusiness.

[1]There are two options available under the economics specialization: (a) 40 hours in agriculture which provides a broad training in agriculture or (b) 32 hours in agriculture which allows a secondary concentration in either economics or business.

[2]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

[3]Mathematics 110A,B or 111 (College Algebra and Trigonometry) are highly recommended.

[4]ABE 204 can be substituted for GSB 211 (Introductory Economics).

[5]GSD 152 may be substituted.

[6]Accounting, quantitative methods, or agriculture recommended. Two courses in accounting are desirable.

Agribusiness Economics (Agricultural Economics/Agri-business) As A Major

No minor required. No foreign language required. Internships are encouraged for the summer semesters. Masters degree available in Agricultural Economics and Ag Services. Class size 20-50; senior year 15-30. Department is sponsor for special workshops on campus. Students attending junior colleges without an agricultural progam can easily complete an Agricultural Economics/Agri-business major in two years.

Representative First Job Titles: Agricultural Commodities Inspector, Agricultural Commodity Warehouse Examiner, Agricultural Economist, Agricultural Management Specialist, Agricultural Marketing Specialist, Agricultural Market Reporter, Agricultural Program Specialist, Agricultural Industry's Representative, Market Research Analyst, Farm Manager, Industrial Relations Specialist, Industrial Hygienist, Industrial Property Management Specialist, Agricultural Manager, Agribusiness Technician, Agricultural Engineer, Soil and Water Conservationist, Agriculture Business Manager, Feed and Steel Sales, Customer Service and Production Trainee, Livestock Buyer, Sales and Product Development Trainee.

AGRICULTURAL EDUCATION

(Vocational)
College of Education
School of Agriculture
Bachelor of Science

Dr. Thomas Stitt, Chairperson
Telephone - 618-536-7733
Agriculture Building, Room 155

Completion of a four-year course of study in agricultural education leads to certification as a teacher of agricultural occupations. Men and women students have the opportunity to specialize in one of the following areas: agriculture business, agriculture mechanization, ornamental horticulture, plant production, soil conservation, parks and recreation, forestry, conservation, or animal production.

Employment opportunities for agricultural education majors are excellent not only as teachers in high schools and community colleges, but the breadth of training also provides educational background needed for adult training programs provided by high schools, colleges, extension service, and industry. Many foreign agricultural positions are open to persons with this training. This curriculum also provides the educational background sought by many agribusiness firms for sales and management training positions.

First Year		Fall	Spring
GSA 115	Biology	3	-
GSA 106	Chemistry for Non-Science Majors[1]	-	3
GSB	Social Studies[2]	-	3
GSC	Humanities[2]	-	3
GSD 101, 118	English Composition, Technical Report Writing	3	2
GSD 107	Intermediate Algebra[4]	4	-
GSE	Human Health and Well Being	2	-
ABE 204	Introduction to Agricultural Economics[3]	-	3
Anl 121	Science of Animals that Serve Mankind	3	-
Anl 122	Production and Processing Practices	1	-
	Elective	-	2
		16	16

Second Year		Fall	Spring
GSA	Science[2]	3	-
GSB 202	Introduction to Psychology	3	-
GSB	Social Studies (A course in American History or Government)	-	3
GSC	Humanities[2]	-	3
GSD 153	Public Speaking	3	-
GSE	Human Health and Well Being[2]	1	1
PLSS 200	Principles of Field Crop Production	-	3
Agriculture	Agricultural electives[5]	3	3
	Elective	3	3
		16	16

Third and Fourth Years

The last two years of a student's program concentrate on specific professional objectives and electives.

[1]A student with background and interest in Chemistry is recommended to take a higher level of Chemistry.

[2]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

[3]ABE 204 can be substituted for GSB 2lla (Introductory Economics) or vice versa.

[4]College Algebra recommended.

[5]Student should consult with agriculture counselor regarding options available for agriculture electives.

Important - see requirements for entrance into Formal Teacher Education Program.

Agricultural Education As A Major

A student may select one of eight agricultural speciality options for major emphasis. Information about these specialties may be secured from the department.

No minor required. No foreign language required. Approximate class size 30. Masters degree available in Agricultural Education. Methods and student teaching will be stressed junior and senior years. Courses in both the School of Agriculture and the College of Education are included.

AGRICULTURAL EDUCATION AND MECHANIZATION

(Agricultural Mechanization)
School of Agriculture
(Bachelor of Science)

Dr. Thomas Stitt, Chairperson
Telephone - 618-536-7733
Agriculture Building, Room 115

The Agricultural Education and Mechanization curriculum with a specialization in agricultural mechanization is designed to prepare individuals for attractive careers in agriculture and related businesses, in industries that are related to agriculture, or to continue their professional development by entering graduate school. A few career opportunities include farm management careers, grain elevator operations, farm supply sales, public relations, operational positions in the processing industry, power use advisors with electric power supplying agencies and companies, selling field testing farm equipment and product education positions, and service representatives for the various power and machinery companies. Due to the extensive mechanization and technology in agriculture and the related industries employment opportunities are excellent.

Courses in agricultural mechanization are offered in construction and repair processes; agricultural power and machinery; agricultural electrification; agricultural buildings and structures; soil and water conservation; and agricultural materials processing, handling, and storage.

First Year		Fall	Spring
*GSA 115	Biology	3	-
GSA	Science[1]	-	3
*ABE 204	Introduction to Ag Economics	-	3
GSB	Social Studies[1]	-	3
GSC	Humanities[1]	3	3
*GSD 101, 118	English Composition, Technical Report Writing	3	2
GSE	Human Health and Well Being[1]	2	2
*Anl 121	Science of Animals that Serve Mankind	3	-
*Anl 122	Production and Processing Practices	1	-
		15	16

Second Year		Fall	Spring
*STC 107	Applied Physics	-	4
*GSA 106	Chemistry for Non-Science Majors	3	-
GSB	Social Studies1	3	-
GSC	Humanities[1]	-	3
*GSD 107	Intermediate Algebra[2]	4	-
GSD 153	Public Speaking	-	3
*Acct 210	Accounting Principles and Control	-	3
PLSS 200	Principles of Field Crop Production	3	-
	Elective	3	3
		16	16

Third and Fourth Years

The last two years of the individual's program concentrate on work that best leads the individual toward his or her professional goals. The individual will complete 55 semester hours in agriculture of which 27 hours are in agricultural mechanization and 28 semester hours of approved free electives. Elective courses may be taken in agriculture or supporting areas.

*Required or strongly recommended courses for agricultural mechanization majors.

[1]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

[2]GSD 107 (Intermediate Algebra) is a minimum requirement. Math 110a-3 and 110b-2 (College Algebra and Trigonometry) are strongly recommended.

Agricultural Educational and Mechanization (Agricultural Mechanization As A Major)

Individuals do not need to have an agricultural background to enter the agricultural mechanization program.

Internships are encouraged for the summer terms. No minor required. No foreign language required. Masters degree available. Class size 20-50; senior year 15-30. Department sponsors special workshops on campus.

Representative First Job Titles: Agricultural Commodities Inspector, Agricultural Commodity Warehouse Examiner, Agricultural Economics, Agricultural Management Specialist, Agricultural Marketing Specialist, Agricultural Industry's Representative, Market Research Analyst, Farm Manager, Industrial Relations Specialist, Industrial Hygienist, Industrial Property Management Specialist, Agricultural Manager, Agribusiness Technician, Agricultural Engineer, Soil and Water Conservationist, Agriculture Business Manager, Feed and Steel Sales.

AGRICULTURAL EDUCATION AND MECHANIZATION

(Non-Certification Specialization)
School of Agriculture
(Bachelor of Science)

Dr. Thomas R. Stitt, Chairperson
Telephone - 618-536-7733
Agriculture Building, Room 155

The non-certificate specialization is intended for those students who plan to be involved in agricultural education programs in extension, post-secondary educational institutions, and industry. Persons desiring to be certified for public secondary teaching should follow the Agricultural Education major.

First Year		Fall	Spring
GSA 115	Biology	3	-
GSA 106	Chemistry for Non-Science Majors[1]	-	3
GSB	Social Studies	-	3
GSC	Humanities	3	3
GSD 101	English Composition	3	-
GSD 107	Intermediate Algebra[2]	-	4
GSE	Human Health and Well Being	1	1
ABE 204	Introduction to Ag Economics[3]	3	-
Anl 121	Science of Animals that Serve Mankind	3	-
Anl 122	Production and Processing Practices	1	-
GSD 117 or 118	Expository or Technical Report Writing	-	2
		17	16

Second Year		Fall	Spring
GSA	Science[4]	3	-
GSB 202	Introduction to Psychology	3	
GSB	Social Studies	-	3
GSC	Humanities	-	3
GSD 153	Public Speaking	3	-
GSE	Human Health and Well Being	1	-
PLSS	Plant and Soil Science Course	-	3
Agriculture	Agriculture Electives	3	3
	Electives	3	3
		16	15

Third and Fourth Years

The last two years of a student's program concentrates on specific professional objectives and electives.

[1]A student with background and interest in Chemistry is recommended to take a higher level of Chemistry.

[2]College Algebra recommended.

[3]ABE 204 can be substituted for GSB 211A (Introductory Economics).

[4]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

Agricultural Education Non-Certification Specialization

No minor required. No foreign language required. Approximate class size 30. Masters degree available in Agricultural Education.

Representative First Job Titles: Agribusiness Economics, Agricultural Commodities Inspector, Agricultural Commodity Warehouse Examiner, Agricultural Economist, Agricultural Management Specialist, Agricultural Market Reporter, Agricultural Program Specialist, Agricultural Industry's Representative, Market Research Analyst, Farm Manager, Industrial Relations Specialist, Industrial Hygienist, Industrial Property Management Specialist, Agricultural Manager, Agribusiness Technician, Agricultural Engineer, Soil and Water Conservationist, Agriculture Business Manager, Feed and Steel Sales.

AGRICULTURE (GENERAL)

School of Agriculture
(Bachelor of Science)

Dr. William A. Doerr,
Chief Academic Advisor
Telephone - 618-453-2469
Agriculture Building, Room 206

General Agriculture is intended for those students who are seeking broad backgrounds in agriculture. It is the major of greatest flexibility within the School of Agriculture and is probably the best major for students who have not chosen a professional area for emphasis. Many agriculture students are graduated with a major in General Agriculture. Some students start as General Agriculture majors, later identify an area in which they want to specialize and transfer to the appropriate major for that specialty. Other students start in one of the specialized areas and later decide to transfer to and be graduated from General Agriculture. Possible specializations within the General Agriculture major include: Environmental Studies, Foreign Agriculture, and Country Living.

Students in this major gain basic preparation for many of the agricultural careers: general farming, agricultural services, agricultural extension, agricultural communication, agricultural business, agricultural industry and agricultural production.

First Year		Fall	Spring
CHEM 140a,b	Chemistry	4	4
GSB	Social Studies (select)[1]	-	3
GSD 101	English Composition	3	-
GSD 117, 118, or 119	Writing (select one)[2]	-	2
GSD 107	Intermediate Algebra	4	-
GSE	Human Health and Well Being (select)	1	1
ABE 204[3]	Introduction to Agricultural Economics	-	3
Anl 121	Science of Animals that Serve Mankind	3	-
Anl 122	Production and Processing Practices	1	-
Bot 200[4]	General Botany	-	3
		16	16

Second Year		Fall	Spring
GSA, B or C	Elective (select)	-	3
GSB	Social Studies (select)	3	-
GSC	Humanities (select)	3	3
GSD 153	Public Speaking	-	2
GSE	Human Health and Well Being (select)	-	2
PLSS 240	Soil Science	4	-
PLSS 220 or 200	General Horticulture or Principles of Field Crop Production	-	3
Zoo 118[4]	Introductory Zoology	3	-
	Electives	3	3
		16	16

[1]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

[2]The three courses are Expository Writing, Technical Report Writing and Creative Writing. The student selects one to meet his or her interests and career objectives.

[3]Agribusiness Economics 204 substitutes for GSB 211 (Contemporary Economics) as well as counting as hours toward the major.

[4]Botany 200 and Zoology 118 substitute for GSA requirements.

Agriculture As A Major

Major requirements include a minimum of 8 semester hours of courses in each of the three departments within the School of Agriculture, plus additional elective courses in agriculture or forestry to complete a total of 40 semester hours.

No minor required; no foreign language required.

ALLIED HEALTH CAREERS SPECIALTIES

School of Technical Careers
(Associate in Applied Science)

Arch Lugenbeel, Supervisor
Telehone - 618-536-6682
STC Building, Room 18E

This program is designed to prepare specialists in combinations of two of the following areas: clinical respiratory therapy, clinical medical laboratory technology and clinical radiologic technology. The program leads to an associate degree.

In addition to meeting University admission requirements, students must also contact the program supervisor below for details on admission to the program. Enrollment in the program is limited due to the fluctuating number of hospitals participating in the program.

Until recently, students were selected who already were working as a technician in a hospital setting. Other students may now be selected to the program subject to the availability of hospital training facilities.

The program is highly individualized and prepares graduates for service in medical facilities where they may be employed as multi-competent technicians.

In general, students take a common core of coursework applicable to all three specialties. This includes courses such as Introduction to Physiology and Human Anatomy, Introduction to Chemistry (Inorganic), Survey of Allied Health Related Sciences, Technical Writing, Oral Reporting, Fundamentals of Mathematics, and Job Orientation and Analysis.

Clinical studies in laboratory techniques, respiratory therapy, and radiologic technology are built upon this basic coursework. These studies will be done off-campus in hospital settings.

Students should expect to spend about $60 in addition to tuition and fees.

For specific information on the program and its specialized application, contact the supervisor.

ANIMAL INDUSTRIES
(Production Option)
School of Agriculture
(Bachelor of Science)

Dr. H. H. Hodson, Chairperson
Telephone - 618-453-2320
Agriculture Building, Room 127

Instruction, demonstration, and consultation are provided in companion animals, dairy, horse, livestock and poultry production, animal behavior, meats, pets, and animal hygiene. Courses are offered in all phases of animal production and management including meats, animal hygiene, reproduction, animal breeding and nutrition.

The student has the opportunity to select courses in other areas of agriculture or related fields, such as business, communications, or physical sciences. This selection allows the student to include in his or her studies the agronomic, agricultural economic, and agricultural engineering phases of agriculture, pre-veterinary medicine, or business as related to animal production.

First Year		Fall	Spring
GSA	Zoology, Botany, or Biology	4	-
GSB	Social Studies	3	3
GSC	Humanities	-	3
GSD 101	English Composition	3	-
GSD 117, 118 or 119	Writing	-	2
GSD 107	Intermediate Algebra	-	4
GSE	Human Health and Well Being	1	1
Anl 121	Science of Animals that Serve Mankind	3	-
Anl 122	Production and Processing Practices of the Animal Industry	1	-
Anl 312	Anatomy, Growth, and Development	-	2
		15	15

Second Year		Fall	Spring
Anl or GSA	Physiology	4	-
GSB	Social Studies	-	3
GSC	Humanities	3	3
GSD 153	Public Speaking	-	3
Chem 140a,b	Chemistry[1]	4	4
Anl 215	Introduction to Animal Nutrition	2	-
GSE	Human Health and Well Being	2	-
Ag	Agriculture Elective	-	3
		15	16

Third and Fourth Years

Courses during the last two years of a student's program concentrate on requirements, electives in Animal Industries, other departments in the School of Agriculture as well as free electives.

[1]Substitutes for GSA Chemistry.

Animal Industries As A Major

Many students work at the various livestock centers and the laboratories to help defray the cost of education as well as to gain valuable experience. An intern course also enables a student to work in special areas (away from campus) and receive credit. Graduates are prepared for employment in many phases of animal agriculture. The department maintains close contact with the industry and assists in placing graduates in permanent positions.

No minor required. No foreign language required. Most of teaching staff have advanced degrees (Ph.D.). Graduate programs are available. Class size 20-60; senior year 10-30.

Representative First Job Titles: Animal Husbandman, Animal Physiologist, Animal Breeding Expert, Animal Ecologist, Animal Taxonomist, Swine Herdsman, Animal Industry Representative, Animal Hygiene Specialist, Farm Manager, Dairy Cattle Manager, Agricultural Economist, Market Analyst, Product Evaluator, Cost-Benefit Analyst, Animal Control Biologist, Livestock Manager, Animal Nutrition Specialist, Dairy Products Tester, Poultry Manager.

ANIMAL INDUSTRIES

(Science and Pre-Veterinary Medicine Option)
School of Agriculture
(Bachelor of Science)

Dr. H. H. Hodson, Chairperson
Telephone - 618-453-2320
Agriculture Building, Room 127

Instruction, demonstration, and consultation are provided in companion animals, dairy, horse, livestock and poultry production, animal behavior, meats, pets, and animal hygiene. Courses are offered in all phases of animal production and management, including meats, animal hygiene, reproduction, animal breeding and nutrition.

The student has the opportunity to select courses in other areas of agriculture or related fields, such as business, communications, or physical sciences. This selection allows the student to include in his or her studies the agronomic, agricultural economic, and agricultural business as related to animal production.

First Year		Fall	Spring
GSB	Social Studies	-	3
Biology	(core suggested)	4	4
GSD 101	English Composition	3	-
GSD 117, 118 or 119	Writing	-	2
GSE	Human Health and Well Being	1-2	1-2
Anl 121	Science of Animals that Serve Mankind	3	-
Anl 122	Production and Processing Practices of Animal Industry	1	-
Math 110a,b	College Algebra and Trigonometry[1]	3	2
	Agriculture Elective	-	3
		15-16	15-16

Second Year		Fall	Spring
GSB	Social Studies	3	3
GSC	Humanities	-	3
Anl or GSA	Physiology	4	-
Chem 222a,b	Introduction to Chemical Principles[2]	4	4
Phys 203a,b	College Physics[3]	3	3
Phys 253a,b	College Physics Lab	1	1
Anl 215	Introduction to Animal Nutrition	2	-
	Agriculture Elective	-	3
		17	17

Third and Fourth Years

In addition to completing General Studies Requirements and Chemistry, courses during the last two years of a student's program concentrate on requirements and electives in Animal Industries, other departments in the School of Agriculture as well as free electives.

[1]Substitutes for GSD 107 (Math).

[2]Substitutes for GSA 106 (Chem).

[3]Substitutes for GSA 101 (Physics)

Animal Industries As A Major

Many students work at the various livestock centers and the laboratories to help defray the cost of education as well as to gain valuable experience. An intern course also enables a student to work in special areas (away from campus) and receive credit. Graduates are prepared for employment in many phases of animal agriculture. The department maintains close contact with the industry and assists in placing graduates in permanent position.

No minor required. No foreign language required. Most of teaching staff have advanced degrees (Ph.D.). Graduate programs are available. Class size 20-60; senior year 10-30.

Representative First Job Titles: Animal Husbandman, Animal Physiologist, Animal Breeding Expert, Animal Ecologist, Animal Taxonomist, Swine Herdsman, Animal Industry Representative, Animal Hygiene Specialist, Farm Manager, Dairy Cattle Manager, Agricultural Economist, Market Analyst, Product Evaluator, Cost-Benefit Analyst, Animal Control Biologist, Livestock Manager, Animal Nutrition Specialist, Dairy Products Tester, Poultry Manager.

ANTHROPOLOGY
College of Liberal Arts
(Bachelor of Arts)

Dr: George Gumerman, Chairperson
Telephone - 618-536-6651
Faner 3525

Faculty members have had field experience in North, South and Central America, the Caribbean, Europe, Africa, Australia and the Pacific. Faculty specialization and field experience in the Greater Southwest, Mesoamerica, Midwest and New Guinea are particularly strong.

With an advanced degree an Anthropologist will typically find employment with museums, foundations, junior colleges, universities and many government programs.

The Anthropology major consists of 32 semester hours, to include Anthropology 300A, 300B, 300C and 300D which introduce the main subfields of the discipline. Although the remaining 20 hours are to be selected in consultation with the student's advisor, 9 of these hours must be at the 400 level.

First Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB	Social Science (select)[1]	3	3
GSC	Humanities (select)[1]	-	3
GSD 101 & 117, 118 or 119	English Composition and Writing (select)[1]	3	2
GSD	Math (select)[1]	-	4
GSE	Human Health and Well Being(select)[1]	2	-
Elective[5]		3	-
		14	15

Second Year		Fall	Spring
GSA	Science (select)[1]	-	3
GSB	Social Science (select)[1]	3	-
GSC or FL	Humanities (select)[1] or Foreign Language[2]	3(4)	3(4)
GSD	Speech (select)[1]	2(3)	-
GSE	Human Health and Well Being (select)[1]	-	2
Math or CS	Mathematics or Computer Science[3]	3	-
ANTH 300A,B	Physical & Linguistic Anthropology[4]	3	3
ANTH 300C or 300D	Archaelogy or Social-Cultural Anthropology	-	3
		14(16)	14(15)

[1]To determine what courses may be taken to satisfy the general education requirements for this program, see the section, General Studies for the Transfer Student.

[2]Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GSC credit and four hours may be used to complete the thirty hours which are required from GSA, GSB, or GSC. If no foreign language is required, then the student may choose the GSC option instead. Students intending to pursue a graduate education should realize that a foreign language would likely be required for graduate school admission; for these students two years of foreign language is recommended.

[3]One of these courses may be used to partially fulfill the Liberal Arts requirement for students beginning college anywhere Fall 1978 or later.

[4]Required by the major.

[5]Elective hours should be used to explore areas of interest and to enhance career opportunities; or courses may be selected to satisfy Liberal Arts requirements (see College of Liberal Arts section).

Anthropology As A Major

When possible, transfer students should contact the department prior to their first semester of attendance.

The program in anthropology covers all the major divisions of anthropology, viz. archaeology, physical anthropology, ethnography, linguistics, and socio-cultural anthropology. Although there are no specific course requirements beyond the four introductory courses, students are urged to take at least one course in each of the following subjects: applied anthropology, archaeology, art and technology, ethnology, history of anthropology, linguistics, physical anthropology, and socio-cultural anthropology. The student who contemplates going on to graduate work in the field is advised to take a broadly based curriculum, in order to increase his or her chances of admission to a graduate program. The anthropology major is also advised to gain a reading knowledge of one of the foreign languages containing substantial anthropological literature, e.g. French, German, Russian, Spanish, and to obtain elementary knowledge of statistics and/or computer science.

Representative First Job Titles: Human Biology & Physical Characteristics Researcher, Operations Research Analyst, Population Studies Anthropologist, Archival Worker, Archaeological Digging Anthropologist, Exhibit Preparation Expert, Museum Engineer, Ethnohistorian, Ethnolinguistician, Rehabilitation & Resettlement Personnel, Systems Evaluator, Safety Personnel, Statistician, Sales Representative, Work Environment Officer, Anthropogeographical Researcher, Ethnologist.

ARCHITECTURAL TECHNOLOGY[1]
School of Technical Careers
(Associate in Applied Science)

Gene E. Trotter, Program Coordinator
Telephone - 618-536-6682
STC Building, Room 107

The technically-trained person is able to work in the area between the draftsman who simply produces drawings of another's ideas and the licensed architect who creates, and will find a variety of positions available to him or her within the architectural profession.

A graduate of this program will have basic knowledge and skills for entry into this broad field, where he or she may advance into such specific areas as project coordination, specifications writing, architectural supervision, structural and mechanical engineering and architectural design.

First Year		Fall	Spring
GSD 101	English Composition	3	-
STC 102	Technical Writing	-	2
STC 105a,b	Technical Mathematics	4	-
STC 107a,b	Applied Physics	-	4
GSD 153	Public Speaking	-	3
Arch 111	Architectural Drafting	7.5	-
Arch 112	Architectural Graphics	3.5	-
Arch 113	Architectural History	2	-
Arch 124	Architectural Drawings I	-	6
Arch 125	Architectural Design I	-	4
		20	19

Second Year		Fall	Spring
Arch 214	Architectural Drawings II	6	-
Arch 215	Architectural Design II	4	-
Arch 216	Architectural Engineering I	4	-
Arch 217	Architectural Systems	2	-
Arch 218	Architectural Surveying	3	-
Arch 224	Architectural Drawings III	-	6
Arch 225	Architectural Design III	-	4
Arch 226	Architectural Engineering II	-	4
Arch 229	Architectural Estimating	-	2
Arch 220	Architectural Specifications	-	2
		19	18

A minimum of 76 hours of credit must be completed for graduation.

Architectural Drafting As A Major

The program is approved by the American Institute of Architects, with instruction by licensed architects.

Field trips to nearby cities to study historical and contemporary architecture are made each year. Allowance should be made in the student's budget for equipment and supplies.

Technical courses taught by faculty with years of experience give you an understanding of the architectural and design professions and other components of the building industry, the design and production process, and the historical, mathematical, and physical factors involved. The program covers building materials, systems, and construction, as well as preparation and interpretation of technical communications such as architectural drawings, models, and architectural delineations.

Representative First Job Titles: Architectural Technician, Inspector, Specification Writer, Coordinator, Work Supervisor, Estimator.

ART
(Drawing)
(Painting)
(Printmaking)
(Sculpture/Foundry)
(Ceramics/Glassblowing)
(Metalsmithing/Blacksmithing)
(Fibers/Weaving)
(General Studio)
(Art History)
College of Communications and Fine Arts
(Bachelor of Arts)

Benjamin T. Miller, Director
Telephone - 618-453-2571
Allyn Building, Room 109

Patricia C. Beene, Adviser
Telephone - 618-453-2032
Allyn Building, Room 5

Undergraduate offerings in art provide introductory and specialized experiences. The courses of study offered, leading toward the Bachelor of Arts degree in art, require 58 hours of art in art history, 52 hours of art in general studio, and 72 hours of art in all other specializations.

First Year		Fall	Spring
GSA	Science (select)[1]	-	3
GSB	Social Studies (select)[1]	-	3
GSC	Humanities (select)[1,2]	3	-
GSD 101	English Composition	3	-
GSD 117, 118 or 119	Writing (select)[1]	-	2
GSD 152, 153, or 104	Speech or Alternate (select)[1]	-	2
GSE	Human Health and Well Being (select)[1]	2	-
Art 100 a,b	Basic Studio	4	4
Art 200 level	Beginning Drawing, Sculpture, Ceramics, Metals, or Fibers	-	3
Art 107	Art Fundamentals	3	-
Art 207	Survey of Art History	-	3
		17	16

Second Year		Fall	Spring
GSA	Science (select)[1]	-	3
GSB	Social Science (select)[1]	3	3
GSD	Mathematics (select)[1]	4	-
GSC	Humanities (select)[1,2]	-	3
GSE	Human Health and Well Being	1	1
Art 200 level	Beginning Painting,Sculpture, Ceramics, Metals, or Fibers	2	2
Art	Electives for Specialization	4	4
Educ 201	Teachers Role in Public School Education (Art Education only)	1	-
		16	15

[1]Refer to section General Studies for the Transfer Student.

[2]Department requirements in Art History include GSC 207 (Aesthetics), and 8 hours of foreign language in French or German, which will help fulfill general studies requirements.

Art As A Major
Graduate degree available.

The School is staffed by a faculty of artist-teachers, many of whom have national reputations resulting from their participation in major exhibitions and invitational shows throughout the country. The School is accredited by the National Association of Schools of Art. The Richert-Ziebold Trust Award of $25,000 is awarded every year to the outstanding graduating senior or seniors from the School of Art. The student can expect to receive training in all of the applied and theoretical branches of visual art.

Transfer students will be able to transfer 36 hours of art from a community college. Work above 36 hours will be evaluated on the basis of a portfolio. Senior institution hours in art will be given transfer credit and evaluated for placement with the School of Art at SIUC.

Representative First Job Titles: Art Apprentice, Studio Assistant, Ceramic Sprayer, Archival Worker, Displays Artist, Exhibit Preparator, Archaeological Digging Officer, Manufacturer's Representative, Purchasing Specialist, Pattern & Mod Maker, Arborer, Arboriculturist (Ornamental Hort.), Archaeological Assistant, Ceramics Specialist, Activities Director, Rehab., Painter, Lithographic Artist, Weaving Expert, Museum Curator.

ART EDUCATION
(School of Art)
College of Education
College of Communications and Fine Arts
(Bachelor of Arts or
Bachelor of Science)

Benjamin Miller, Director
Telephone - 618-453-2571
Allyn Building

Coor., Teacher Education Services
Telephone - 618-536-2329
Wham Building, Room 108

In addition to teaching art in elementary and secondary schools, art majors are employed in museums, private art schools, college art departments, and art galleries. Electives, courses outside of degree requirements, are provided so that the student may encounter additional areas of concern beyond his or her concentration.

First Year		Fall	Spring
GSA	Science (select)[1]	-	3
GSB	Social Studies (select)[1]	3	-
GSC	Humanities (select)[1]	3	3
GSD 101	English Composition	3	-
GSD 117, 118, or 119	Writing (select)[1]	-	2
GSD 153	Public Speaking	-	2
GSE 201	Healthful Living[2]	2	-
GSE	Human Health and Well Being	-	1
Art 100a,b	Basic Studio	4	4
Ed 201	Teacher's Role in Public School Education	-	1
		15	16

Second Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB 212 or 300 or 301	American Government or U.S. History 1492-1877 (select)[2]	-	3
GSB 202	Introduction to Psychology[2]	3	-
GSC	Literature (select)[2]	3	-
GSD	Math (select)[1]	-	4
GSE	Human Health and Well Being (select)[2]	1	-
Art	Studio	4	4
Art 107	Fundamentals of Art	2	-
Art 207	Survey of Art History	-	4
		16	18

[1]Refer to section General Studies for the Transfer Student.

[2]Courses required for certification include GSB 202; GSB 212, 300 or 301; GSD 101; GSD 117, 118, or 119; GSD 153; GSE 100-114 (2 hours); GSE 201; and one additional English course from GSC, GSD or department.

Art Education As A Major

Students may pursue Art Education within either the College of Communications and Fine Arts, or the College of Education.

A student interested in the major should become aware of the requirements for entrance into the Teacher Education Program.

ASSOCIATE DEGREE NURSE
School of Technical Careers
(Associate of Applied Science
in Nursing)

Alice Hees
Program Coordinator
Telephone - 618-536-6682
STC Building, Room 18A

The Associate Degree in Nursing Program offered through the Southern Illinois Collegiate Common Market is developed as an open curriculum model and is designed to provide career mobility for persons who have completed a practical nursing program or its equivalency through formal or informal methods. Students will be given an opportunity to validate past experiences through utilization of a comprehensive testing program. After assessment by the nursing faculty, an individualized prescriptive type educational program will be developed with each student.

This unique program is designed to prepare the student for the practice of nursing as defined in the Illinois Nurse Practice Act and meets the requirements for accredited schools in associate degree nursing in Illinois.

Upon satisfactory completion of the program, the student will be eligible to write the Illinois State Board Nursing Examination and to become a Registered Nurse.

First Year

Provide evidence of having graduated from an approved program of practical nursing or its equivalent.

Second Year		Fall	Spring
ADN 201	Introduction to Nursing and Science	3	-
ADN 202	Maternal-Child Nursing Interventions	4	-
ADN 203	Psychiatric Nursing Interventions	-	4
ADN 204	Neurological-Sensory Nursing Interventions	-	2
ADN 207	Genital-Urinary Nursing Interventions	2	-
ADN 208	Metabolic-Endocrine Nursing Interventions	2	-
ADN 209	Community Health Nursing	2	-
ADN 210	Cardiovascular Nursing Interventions	-	2
ADN 211	Respiratory Nursing Interventions	-	2
ADN 212	Gastrointestinal Nursing Interventions	-	2
*GS	General Education	6	6
		19	18

		Third Semester
ADN 205	Dermatological Nursing Interventions	2
ADN 206	Orthopedic Nursing Interventions	2
ADN 213	Nursing Today and Tomorrow	1
**GS	General Education	3
		8

*Required General Education
GSD - 5 hours (2 areas); GSB 203-4; GSB 202-3

**To be selected by student, dependent on need or interest.

Nursing As A Major

A graduate of this program who has passed the Illinois State Board Nursing Examination will be a Registered Nurse and be able to carry out nursing and other therapeutic measures with a high degree of skill using principles from an ever expanding body of science. The licensed registered nurse performs nursing functions with patients who are under the supervisory care of a physician and assists in the planning of the day-to-day care of patients; evaluating the patient's physical and emotional reactions to therapy; taking measures to alleviate distress using treatment modalities with knowledge and precision; and supervising other workers in the technical aspects of care.

A minimum of 65 hours credit is required for the associate degree.

Representative First Job Titles: Hospital Staff Nurse, Industrial Nurse, Public Health Nurse, Private Duty Nurse, Office Nurse.

AUTOMOTIVE TECHNOLOGY
School of Technical Careers
(Associate of Applied Science)

James White, Program Coordinator
Telephone - 618-985-4323
STC Carterville Campus

The objective of the Automotive Technology program at the School of Technical Careers is to provide students with an opportunity to obtain a solid foundation of knowledge, experience and skills that will assist in job entry and career advancement in many facets of automotive service and related industries.

Instruction in the Automotive program is geared to a thorough presentation of fundamental concepts and reinforced with practical applications of those concepts with structured laboratory activities, and service and diagnosis of live automobiles. In a vast majority of the courses all units studied will be working or operational units and dynamic testing of the units is an integral part of the course.

During the first year, students are required to enroll in a series of core courses which provide them with the opportunity to obtain and develop those skills and technical information considered essential to all service technicians. During the second year students may choose any four of eight possible areas. In most cases, these courses will deal with advanced instruction in areas covered in the core courses.

The associate degree can be completed in two academic years at Southern Illinois University at Carbondale or in combination with community college or other acceptable extra instructional educational experience.

Upon the completion of the associate degree and at the option of the student, the student may continue additional automotive studies for part or all of a third year in areas in which courses are available.

The student should expect to spend about $350 for a basic tool kit consisting of both domestic and metric tools and supplies.

First Year		Fall	Spring
AUT 101	Automotive Engines & Fuel Systems Lab	4.5	-
AUT 121	Basic Automotive Engines&Fuel Systems Theory	3	-
AUT 103	Brakes anc Chassis Lab	4.5	-
AUT 123	Brakes anc Chassis Theory	3	-
AUT 115	Related Shop Lab	2	-
GSD 101	English Composition	3	-
AUT 105	Engine Electrical Lab	-	4.5
AUT 125	Engine Electrical Theory	-	3
AUT 107	Drive Trains Lab	-	4.5
AUT 127	Drive Trains Theory	-	3
STC 105a	Technical Mathematics	-	2
STC 153	Oral Reporting	-	3
		20	20

Second Year		Fall	Spring
AUT *	Automotive Lab & Theory	15	15
STC 107a,b	Applied Physics	4	-
STC 108	Chemistry of Fuels and Lubricants	-	2
STC 102	Technical Report Writing	-	2
		19	19

*200-Level Automotive Courses: With the aid of an advisor and availability of courses, the student must choose 4 areas of study (2 per semester) from the following list of courses.

	Lab	Theory
Automatic Transmissions	AUT 201-4.5	AUT 121-3
Automotive Power Accessories	AUT 203-4.5	AUT 223-3
Automotive Air Conditioning	AUT 204-4.5	AUT 224-3
Advanced Fuel and Emission Systems	AUT 205-4.5	AUT 225-3
Advanced Brakes and Chassis	AUT 207-4.5	AUT 227-3
Advanced Engine	AUT 208-4.5	AUT 228-3
Advanced Electrical Systems	AUT 209-4.5	AUT 229-3
Fuel Injection Systems	AUT 210-4.5	AUT 230-3

Entry Level Jobs: Automotive Service Technician, Service Writer, Assistant Service Manager, Shop Foreman, Service Representative, Automotive Parts Counter Person, Apprentice Truck Service Technician.

Representative First Job Titles: General Auto Mechanic, Alignment Specialist, Engine Overhaul Specialist, Automakers' Production Foreman, Automakers' Dealer's Representative, Auto Maintenance Foreman.

AVIATION TECHNOLOGY
School of Technical Careers
(Associate of Applied Science)

Joseph Schafer, Director
Telephone - 618-536-3371
Southern Illinois Airport

Upon graduation, the student receives the Associate in Technology degree, and depending on his or her area of concentration, is qualified to obtain the Federal Aviation Agency (FAA) Airman Airframe and Powerplant certificate as an A & P maintenance technician. Students may also take flight classes as electives in this program or any other. See "Flight" section for details.

Skilled technicians are in demand in the rapidly-growing aviation industry, both in airlines and general aviation. The industry demands people who possess a wide range of knowledge and ability provided by general education as well as special technical training.

The student studies reciprocating and jet powerplants, hydraulics, fuel systems, ignition-starting systems, carburetion and lubricating systems, instruments, and powerplant testing in coordinated classroom and laboratory work. The program is fully accredited by the Federal Aviation Administration.

First Year		Fall	Spring
GSD 101	English Composition	3	-
GSD 118	Technical Report Writing	-	2
STC 105a	Technical Mathematics	2	-
AT 110	Aircraft Structure--Fabrication and Repair	-	4
AT 111	Material and Metal Processing	7	-
AT 112	Aircraft Electricity	4	-
AT 113	Aircraft Instruments and FAR	4	-
AT 203	Aerodynamics and Weight and Balance	-	5
AT 204	Aircraft Hydraulics	-	4
AT 205	Cabin Environment & Jet Transport Systems	-	5
		20	20

Second Year		Fall	Spring
GSB 202	Introduction to Psychology	3	-
GSD 153	Public Communications	-	2
AT 210	A & P Electrical and Ignition Systems	7	-
AT 211	Reciprocating Powerplant	5	-
AT 212	Carburetion, Lubrication and Fuel	5	-
AT 214	Propellers	-	4
AT 215	Powerplant Testing	-	5
AT 216	Jet Propulsion Powerplant	-	6
Elective	Social Science	-	2
		20	19

		Summer*
AT 225	Aircraft Inspection	6
AT 230	Powerplant Inspection	6
		12

*A minimum of 79 hours satisfies requirements for the associate degree; students who wish to qualify for the FAA A & P licenses are required to take an additional eight weeks of summer school.

Aviation Technology As A Major

Aviation technology facilities are located at the Southern Illinois Airport, three miles NNW of the Carbondale campus and three miles ENE of Murphysboro, Illinois.

Students entering the aviation technology program for the first time must purchase a basic tool kit which costs approximately $300.

The Aviation Technology Department is acclaimed by many branches of the aviation industry and government agencies as the best school in the nation. It prepares students on animated training panels representing the modern jet transports such as: Boeing 707 and 727, and Douglas DC9 aircraft.

Executives in the aviation industry constitute an advisory committee which serves the program.

Representative First Job Titles: A&P Mechanic, Maintenance Technician.

AVIONICS TECHNOLOGY
School of Technical Careers
(Associate of Applied Science)
Airframe Option

Larry Birkhead, Program Coordinator
Telephone - 618-536-3371
Southern Illinois Airport

Technicians skilled in aviation electronics, or avionics, are needed for the development, installation, and maintenance of the sophisticated systems required for modern aviation.

The student in this program can take advantage of the combination of courses available through the Aviation Technology and Electronics Technology programs. He or she will learn basic AC and DE electricity, vacuum tubes and transisters, aircraft integrated flight systems, airborne radar systems, aircraft flight controls and instrumentation systems, transmitters and receivers, and aircraft communications and navigation systems.

The graduate will be able to install, maintain, test, and repair airborne communications and navigation systems and radar equipment. He or she will find opportunities for employment with the airlines, in general aviation, and in aircraft manufacturing.

First Year		Fall	Spring
GSD 101	English Composition	3	-
STC 105a	Technical Mathematics	2	-
AT 111	Materials & Metal Processing	7	-
AT 112	Aircraft Electricity	4	-
AT 113	Aircraft Instruments & FAR	5	-
ATA 232	Avionics-Electronic Circuits	-	10
ATA 235	Flight System Theory	-	6
ATA 236	Avionics Lab III	-	5
		21	21
Second Year			
ATA 233	Aircraft Communication & Navigation Systems Theory	5	-
ATA 234	Avionics Lab II	6	-
ATA 237	Avionics Logic Circuits & Pulse System Theory	5	-
ATA 238	Avionics Lab IV	5	-
GSD 118	Technical Report Writing	-	2
GSB	Social Science (select)	-	3
AT 203	Aerodynamics & Weight & Balance	-	5
AT 205	Cabin Environment & Jet Transport Systems	-	5
AT 210a	Electrical Systems	-	2
		21	21

		Summer*
GSD 153	Public Speaking	3
ATA 302	Avionics Lab V	3
ATA 303	FCC Regulations	2
ATA 304	Avionics Radar System Theory	4
		12

*To meet federal and industry requirements, the student should plan to take additional 300-level courses offered as a post-associate specialty.

A minimum of 87 hours credit is required for the associate degree.

AVIONICS TECHNOLOGY
School of Technical Careers
(Associate of Applied Science)
Electronics & Avionics Option

Larry Birkhead
Program Coordinator
Telephone - 618-536-3371
Southern Illinois Airport

Technicians skilled in aviation electronics, or avionics, are needed for the development, installation, and maintenance of the sophisticated systems required for modern aviation.

The student in this program can take advantage of the combination of courses available through the Aviation Technology and Electronics Technology programs. He or she will learn basic AC and DE electricity, vaccuum tubes and transisters, aircraft integrated flight systems, airborne radar systems, aircraft flight controls and instrumentation systems, transmitters and receivers, and aircraft communications and navigation systems.

The graduate will be able to install, maintain, test, and repair airborne communications and navigation systems and radar equipment. He or she will find opportunities for employment with the airlines, in general aviation, and in aircraft manufacturing.

First Year		Fall	Spring
GSD 101	English Composition	3	-
GSD 118	Technical Report Writing	-	2
STC 105a,b	Technical Mathematics	4	-
STC 118	Applied Calculus	-	2
Elt 101	DC-AC Circuit Analysis	5	-
Elt 102	Electronics Circuit Theory	-	5
Elt 111	DC-AC Circuit Analysis Lab	6	-
Elt 112	Electronics Circuit Lab	-	6
Elt 121	Electronics Devices	3	-
Elt 122	Communications Fundamentals	-	3
		21	18

Second Year		Fall	Spring
AT 113	Aircraft Instruments and FAR	5	-
GSB	Social Science	4	-
Ata 233	Aircraft Communication & Navigation Systems	5	-
Ata 234	Avionics Laboratory II	6	-
Ata 235	Flight Control Systems Theory	-	6
Ata 236	Avionics Laboratory III	5	-
Ata 237	Avionics Logic Circuits & Pulse Systems Theory	-	5
Ata 238	Avionics Laboratory IV	-	5
		20	21

		Summer*
GSD 153	Public Speaking	3
Ata 304	Avionics Radar System Theory	4
Ata 302	Avionics Laboratory V	3
Ata 303	FCC Regulations	2
		12

*To meet federal and industry requirements, the student should plan to take these additional courses offered as a post-associate specialty.

A minimum of 80 hours credit is required for the associate degree.

Representative First Job Titles: Line Avionic Repairperson, Shop Repairperson, Electronic Maintenance Foreman, Company Representative.

BIOLOGICAL SCIENCE[1]
College of Education
(Bachelor of Science)

Coordinator of Teacher EducationServices
Telephone - 618-536-2329
Wham Building, Room 108

This curriculum is designed to give the student a broad, yet intensive, education in the biological sciences preparatory for various professions, especially the teaching of biology at the secondary level. The work may be taken in either the College of Science or the College of Education. The science requirement for this concentration is the same in both colleges.

The biological sciences curriculum consists of courses selected from General Studies Area A and the Departments of Botany, Microbiology, Physiology, and Zoology. A student selecting biological sciences as his or her concentration does not need to take a secondary concentration.

First Year		Fall	Spring
Zool 220a,b	Diversity of Animal Life	4	4
GSB	Social Studies (select)[2]	-	3
GSC	Humanities (select)[2]	-	3
GSD 101	English Composition	3	-
GSD 117, 118, or 119	Writing (select)[2]	-	2
*Bot 200, 201	General Botany and Lab	-	4
*Math 111	College Algebra and Trigonometry	5	-
GSD 153	Public Speaking	3	-
		17	17

Second Year		Fall	Spring
GSB 212, 300, or 301	American Government or U.S. History	4	-
GSC	English elective in Humanities	-	3
GSC	Humanities (select)[2]	3	-
GSE	Human Health and Well Being	2	2
*Chem 224, 225	Introduction to Chemical Principles & Lab	7	-
GSB 202	Introduction to Psychology	-	3
*Phsl 210	Introductory Human Physiology	-	4
Educ 201	Teacher's Role in Public School Ed.	-	1
		16	13

*Approved substitutes for General Studies.

[1]See also the program under the College of Science.

[2]Refer to the section General Studies for the Transfer Student.

Biological Science As A Major

Foreign Language is not required for students pursuing the Bachelor of Science in Education degree.

For specific major requirements see the Undergraduate Catalog.

Courses required for certification include: GSB 202, Introduction to Psychology; GSB 212, Introduction to American Government and Politics OR GSB 300 or 301, History of the United States; GSD 101, English Composition; GSD 117, 118 or 119, Writing; GSD 153, Public Communication; GSE 100-114 (2 hours), Physical Education Activities; GSE 201, Healthful Living; One additional English course (GSC, GSD, or departmental).

BIOLOGICAL SCIENCES[1]

College of Science
(Bachelor of Arts)

Dr. William Dyer,
Coordinator of Biological Sciences
Telephone - 618-536-5537
Neckers Building

This curriculum is designed to give the student a broad, yet intensive, education in the biological sciences preparatory for various professions, especially the teaching of biology at the secondary level. The work may be taken in either the College of Science or the College of Education. The science requirement for this concentration is the same in both colleges.

The biological sciences curriculum consists of courses selected from the Departments of Botany, Microbiology, Physiology, and Zoology.

First Year		Fall	Spring
GSD 101	English Composition	3	-
GSD 117, 118 or 119	Expository, Technical Report, or Creative Writing	-	2
*FL	Foreign Language[4]	4	4
*Math 110a,b	College Algebra and Trigonometry[3,4]	3	2
Zoology 220a,b	Diversity of Animal Life (Invertebrate, Vertebrate)	4	4
GSB	Social Studies (select)[2]	3	-
GSC	Humanities (select)[2]	-	3
GSE	Human Health and Well Being (select)[2]	-	1
		17	16

Second Year		Fall	Spring
GSD 152, 153 or 104	Speech	2 (3)	-
*Bot 200, 201	General Botany and Lab[4]	4	-
*Bot 204, 205	Plant Diversity and Lab[4]	-	4
*Chem 224, 225 or Chem 222a,b	Introduction to Chemical Principles[4]	7 (4)	- (4)
GSB	Social Studies (select)[2]	3 (6)	3 (-)
GSC	Humanities (select)[2]	-	2
GSE	Human Health and Well Being[2]	-	3
Phsl 210	Introductory Human Physiology[4]	-	5
		16 (17)	17 (18)

Third and Fourth Year
The last two years of a student's program should include completion of 3 additional hours in GSA, GSB, or GSC, and the following courses in biological sciences: Microbiology 301, 302 (7 hours), any two of Biology 305, Biology 306, Biology 307, Biology 308, or Biology 309 (6 hours), and any electives in biological sciences at the 400-level, for 6 hours. Chemistry 340 is recommended.

*Approved substitutes for General Studies.

[1]See also the program (B.S.) under the College of Education.

[2]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

[3]Math 111 substitutes for Math 110a,b.

[4]Students in the College of Science must take one year of foreign language, one year of math, 6 semester hours of physical sciences, and 6 semester hours of biological sciences.

Biological Sciences As A Major
Although advanced work (M.A. or Ph.D.) has become a basis for professional preparation in the biological sciences, many technician positions exist in industry for people who cannot immediately pursue graduate study--or who do not care to do so. Pharmaceutical houses, chemical companies and laboratories of all types require such personnel. Large medical centers actively recruit the undergraduate degree holder and women frequently find favorable research and service oriented positions. In addition, all industrial firms selling chemicals or biologicals have continuous openings for sales and management trainees with general science backgrounds.

No minor required.

Representative First Job Titles: Venereal Disease Investigator, Biochemist, Aide-Veterinary Clinic, Pharmaceutical Sales, Fishery Bacteriologist, Quality Control Specialist, Embryologist, Genetics Scientist, Medical Laboratory Assistant, Medical Bacteriologist, Researcher-Chiropractic College, Nutrition Specialist, Plant Protection Scientist, Technical Marketing Representative, Research Technician, Technical Library Operator, Biological Warfare Officer, Technical Sales, Soil Conservation Technician, Soil Bacteriologist, Commodities Inspector, Food and Drug Inspector.

BOTANY[1]
College of Education
(Bachelor of Science)

Coordinator of Teacher Education Services
Telephone - 618-536-2329
Wham Building, Room 108

Botany is a broad science that includes many specialties. For example, a person who has a quantitative turn of mind and enjoys mathematics or chemistry might find genetics or biochemistry exciting, whereas a person who has always enjoyed outdoor activity might be attracted to systematic botany or ecology. Plant Morphology might appeal to a person who enjoys observation and interpretation, but plant physiology might have more appeal for a person who prefers experimentation. The exact courses that should be selected by students who wish to prepare for a career in botany or for graduate study will vary somewhat depending upon the area of plant science in which they intend to specialize.

First Year		Fall	Spring
GSB 212	Introduction to American Government & Politics	-	4
GSD 101	English Composition	3	-
GSD 117, 118, or 119	Writing	-	2
*Math 111	College Algebra and Trigonometry	5	-
GSE 201	Healthful Living	2	-
GSE	Human Health and Well Being (select)[2]	1	-
*Bot 200, 201	General Botany & Lab	4	-
*Chem 224, 225	Introduction to Chemical Principles & Lab	-	7
GSC	Humanities (select)[2]	-	3
		15	16

Second Year		Fall	Spring
GSB 202	Introduction to Psychology	-	3
GSB	Social Studies (select)[2]	3	-
GSC	English elective in Humanities (select)[2]	3	-
GSC	Humanities (select)[2]	3	3
GSD 152 or 153	Interpersonal Communication or Public Speaking	-	2
GSE	Physical Education Activities (select)[2]	-	1
Ed 201	Teacher's Role in Public School Education	-	1
Bot 204, 205	Plant Diversity & Lab	4	-
Bot	Electives	3	6
		16	16

*Approved substitutes for General Studies.

[1]Should have a minor in Zoology. See also the program under the College of Science.

[2]Refer to the section General Studies for the Transfer Student.

Botany As A Major

For specific major requirements see the Undergraduate Catalog.

Foreign language is not required for students pursuing the Bachelor of Science in Education degree.

The following courses are required for teacher certification: GBS 202, Introduction to Psychology; GSB 212, Introduction to American Government and Politics OR GSB 300 or 301, History of the United States; GSD 101, English Composition; GSD 117, Expository Writing or GSD 118, Technical Writing; GSD 153, Public Communication; GSE 100-114 (2 hours), Physical Education Activities; GSE 201, Healthful Living; one additional English course (GSC, GSD, or departmental).

BOTANY[1]
College of Science
(Bachelor of Arts)

Dr. John Voigt, Department Advisor
Telephone - 618-536-2331
Life Science II, Room 479

Botany is a broad science that includes many specialities. For example, a person who has a quantitative turn of mind and enjoys mathematics or chemistry might find genetics or biochemistry exciting, whereas a person who has always enjoyed outdoor activity might be attracted to systematic botany or ecology. Plant Morphology might appeal to a person who enjoys observation and interpretation, but plant physiology might have more appeal for a person who prefers experimentation. The exact courses that should be selected by a student who wishes to prepare for a career in botany or for graduate study will vary somewhat depending upon the area of plant science in which he or she intends to specialize.

First Year		Fall	Spring
GSD 101	English Composition	3	-
GSD 117, 118 or 119	Writing (select)	-	2
*FL	Foreign Language[3]	4	4
*Math 110a,b	College Algebra and Trigonometry[3]	3	2
GSB	Social Studies (select)[2]	3	-
GSC	Humanities (select)[2]	-	3
GSE	Human Health and Well Being (select)[2]	-	1
*Bot 200, 201	General Botany and Lab[3]	4	-
*Bot 204, 205	Plant Diversity and Lab[3]	-	4
		17	16

Second Year		Fall	Spring
GSD 152	Interpersonal Communication	2	-
*Chem 224, 225 or 222a,b or 140a,b	Introduction to Chemical Principles[3,4]	7 (4)	- (4)
GSB	Social Studies (select)[2]	3 (6)	3 (0)
GSC	Humanities (select)[2]	-	3
GSE	Human Health and Well Being[2]	1	2
Botany 304	Plant Classification	3	-
*Biology 307	Environmental Biology	-	3
Botany	Elective	-	4
		16	15 (16)

*Approved substitutes for General Studies.

[1]See also the program under the College of Education (Bachelor of Science).

[2]To determine what courses may be taken to satisfy this program, please refer to the section, General Studies for the Transfer Student.

[3]Students in the College of Science must take one year of foreign language, one year of math, 6 semester hours of physical sciences, and 6 semester hours of biological sciences.

[4]Students have two options for chemistry: Option A is 140a,b; Option B is Chemistry 224, 225 (or the two-semester version, Chemistry 222a,b) with 340 and 341 to follow in the third or fourth year. Option B is recommended for those interested in plant physiology or graduate school.

Third and Fourth Year
The last two years of a student's program should include completion of 3 additional hours in GSA, GSB, or GSC, Biology 305, and the following courses in botany: Botany 320, 335, 337, and any botany electives totaling 16 hours to be selected from Botany offerings excluding Botany 160, 257, 258, 259, 462, 490, 491; and may include up to a total of 6 hours selected from Botany 390, 391, and 492.

Botany As A Major
As a general rule, a student who intends to apply for admission to a graduate school for study for an advanced degree in botany should include the following in his or her undergraduate program: inorganic and organic chemistry, mathematics through calculus, a modern European language, and as many botany and biology courses as time and scheduling will permit.

An honors program is available to those juniors and seniors in botany who have an overall grade point average of 3.00 or better and an average in botany courses of 3.25 or better. The honors student should enroll in Botany 492 during some semester of both junior and senior years for a total of no fewer than three semester hours.

Representative First Job Titles: Agricultural Sales, Biological Product Development Scientist, Botanist, Ecologist, Economic Botanist, Horticulture Technician, Plant Breeding Technician, Plant Ecologist, Plant Morphologist, Plant Nematologist, Plant Pathologist, Plant Physiologist, Plant Taxonomist, Soil Bacteriologist, Plant Protection Technician, Quality Control Specialist, Parasitologist, Technical Library Operator, Museum Curator, Biotechnologist, Industrial Bacteriologist, Research-Glacier National Park, Embryologist, Biological Warfare Scientist, Agricultural Commodities Inspector.

BUSINESS AND ADMINISTRATION
College of Business and Administration
(Bachelor of Science)

Dr. Donald Vaughn, Assistant Dean
for Undergraduate Studies
Telephone - 618-453-5250
General Classrooms Bldg., Room 113

The Bachelor of Science degree program with a major in Business and Administration is intended for those students with personal and professional goals which entail a blending of course work offered by the College of Business and Administration with a secondary concentration comprised of 20-23 semester hours of course work offered by other schools and colleges of the University. This combining of interests--business with an outside field--can result in a unique program. For example, a student with international business interests can combine business and administration with foreign languages; a student interested in going into the restaurant business can combine course work in food and nutrition with business and administration. The outside field (or secondary concentration) must be consistent with a specific career objective or personal development plan and at least 15 semester hours must be structured to achieve this objective. Individual programs are subject to the approval of the Dean of the College of Business and Administration.

First Year		Fall	Spring
GSA	Science (select)[1]	3	3
*GSB 202	Introduction to Psychology	-	3
GSC	Humanities (select)[1]	6	3
GSD 101 & 117, 118 or 119	English Composition & Writing (select)[1]	3	2
*Math 116-5 or 139-3	Finite Mathematics and Algebra	3 (5)	-
*Math 117 or 140	Finite Mathematics and Calculus or Short Course in Calculus	-	4 (5)
		15 (17)	15 (16)

Second Year		Fall	Spring
*Acct 221, 222	Financial, Managerial Accounting	3	3
*ADSC 208	Interpretation of Business Data	4	-
*CS 222 or EDP 217	Intro. to Computer Programming (PL1) or Computing for Business Admin. (FORTRAN)	-	3
*Econ 214, 215	Economics, Macro and Micro[2]	3	3
GSA	Science (select)[1]	3	-
*GSD 153 or 152	Public Speaking or Interpersonal Communication	3 (2)	-
GSE	Human Health and Well Being (select)[1]	-	2
GS- ---	General Studies Electives	-	4
		16 (15)	15

*Required courses for a major in Business and Administration.

[1]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

[2]Econ 214 or 215 counts toward GSB credit.

Business And Administration As A Major

Secondary concentration required; foreign language not required.

Graduate degree available: MBA, Masters in Accountancy, DBA.

It is strongly recommended that the courses listed above be completed prior to the junior year. Many of these courses are prerequisites to later requirements.

The Department is recognized by the American Assembly of Collegiate Schools of Business (AACSB).

BUSINESS ECONOMICS
College of Business
and Administration
(Bachelor of Science)

Dr. Donald Vaughn
Assistant Dean for Undergraduate Studies
Telephone - 618-453-5250
General Classrooms Bldg, Rm 113

The Business Economics major offered through the College of Business and Administration em-phasizes the application of economic concepts and the use of critical analysis to the solution of economic and managerial problems.

This undergraduate program is an excellent general preparation for future managerial and staff assignments in a variety of business and public organizations. The program also prepares students for graduate study in economics as well as for the Master in Business Administration (MBA) degree.

Those students who desire professional careers as business and managerial economists are advised to plan to complete one to four years of post graduate study.

First Year		Fall	Spring
GSA	Science (select)[1]	3	3
*GSB	Introduction to Psychology	-	3
GSC	Humanities (select)[1]	6	3
GSD 101 & 117, 118 or 119	English Composition & Writing (select)[1]	3	2
*Math 116-5 or 139-3	Finite Mathematics and Algebra	3 (5)	-
*Math 117 or 140	Finite Mathematics and Calculus or Short Course in Calculus	-	4 (5)
		15 (17)	15 (16)

Second Year		Fall	Spring
*Acct 221, 222	Financial, Managerial Accounting	3	3
*ADSC 208	Interpretation of Business Data	4	-
*CS 212 or EDP 217	Intro to Computer Programming (PL/1) or Computing for Business Admin. (FORTRAN)	-	3
*Econ 214, 215	Economics, Macro and Micro[2]	3	3
GSA	Science (select)[1]	3	-
*GSD 153 or 152	Public Speaking or Interpersonal Communication	3 (2)	-
GSE	Human Health and Well Being	-	2
GS- ---	General Studies Electives	-	4
		16 (15)	15

*Required course for a major in Business Economics.

[1]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

[2]Econ 214 or 215 count toward GSB credit.

Business Economics As A Major

Neither minor nor foreign language required.

Graduate degree available: MBA, Masters in Accountancy, DBA.

It is strongly recommended that the courses listed above be completed prior to the junior year. Many of these courses are prerequisites to later requirements.

The Department is recognized by the American Assembly of Collegiate Schools of Business (AACSB).

Representative First Job Titles: Tax Consultant, Account Executive, Business & Economics Statistician, Business Planning Officer, Economic Analyst, Economic Forecaster, Investment Analyst, New Business Researcher, Organization Planning Officer, Systems Evaluator, Marketing Representative, Operating Plans and Procedures Officer, Operations Research Analyst, Labor Economist, Labor Relations Officer, Workman's Compensation Officer, Benefits Analyst, Industrial Economist, Industrial Labor Relations Specialization Off., Business Analyst, Loan Administrator, Loan Examiner.

BUSINESS EDUCATION
College of Education
(Bachelor of Science)

Coordinator of Teacher Education Services
Telephone - 618-536-2329
Wham Building, Room 108

Dr. Marcia Anderson
Coordinator of Program Area
Telephone - 618-453-2620
General Classrooms Building, Room 308

Students admitted to the Undergraduate Teacher Education program in Business Education may select one of the following teaching areas: office education, accounting, data processing, general business/consumer education, and marketing.

First Year		Fall	Spring
GSA	Science (select)[1]	-	3
GSB 202	Introduction to Psychology	3	-
GSC	Humanities (select)[1]	3	3
GSD 101	English Composition	3	-
GSD 118	Technical Report Writing	-	2
GSD 107	Intermediate Algebra	4	-
GSD 152 or 153	Interpersonal Communication or Public Speaking	-	2
GSE	Human Health and Well Being	1	1
Ed 201	Teacher's Role in Public School Education	-	1
VES 210	Introduction to Business Education	-	3
		14	15

Second Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB 211	Contemporary Economics	3	-
GSB 212, 300 or 301	American Government or History of U.S.	-	3
GSC	English Elective in Humanities (select)[1]	3	-
GSD 110	Economic & Business Statistics	-	2
GSE 201	Healthful Living	2	-
Scr 101a	Keyboarding	2	-
VES 302	Communication in Business	-	2
Acct 221	Accounting I	3	-
VES 306	Introduction to Data Processing	-	3
GS	Electives	-	3
		16	16

[1]Refer to the section General Studies for the Transfer Student.

Business Education As A Major

Students should include the following courses required for certification: GSB 202, Introduction to Psychology; GSB 211, Contemporary Economics; GSB 212, Introduction to American Government and Politics, or GSB 300 or 301, History of the United States; GSD 101, English Composition; GSD 118, Technical Writing; GSD 153, Public Communication; GSE 100-114, 2 hours, Physical Education Activities; GSE 201, Healthful Living; one additional English course (GSC, GSD, or Departmental required).

Major Core Requirements: Accounting 221, Economics 214 or GSB 211 (see above), Marketing 304, Secretarial and Office Specialties 101 a and b, Vocational Education Studies 210, 302, and 306.

BUSINESS EDUCATION
Non-Certification Business Occupations Teaching
College of Education
(Bachelor of Science)

Coordinator of Teacher Education Services
Telephone - 618-536-2329
Wham Building, Room 108

Dr. Marcia Anderson
Coordinator of Program Area
Telephone - 618-453-3321
General Classrooms Building, Room 308

This Business Education program provides students with the background to fulfill careers in these areas: (1) teaching the occupation in community colleges, private schools, or government sponsored educational program; (2) employment in the occupation; (3) employment in education or training divisions within a business.

First Year		Fall	Spring
GSA	Science (select)[1]	3	-
GSB 202	Introduction to Psychology	3	-
GSB 305	Personal Finance	-	3
GSC	Humanities (select)[1]	-	3
GSC 208	Elementary Logic	3	-
GSD 101	English Composition	3	-
GSD 118	Technical Report Writing	-	2
GSD 113	Introduction to Mathematics	2	-
GSD 112 or 110	Statistics	-	2
GSD 152 or 153	Interpersonal Communication or Public Speaking	-	3
GSE	Human Health and Well Being	2	-
ACCT 221	Accounting I	-	3
		16	16

Second Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB 211	Contemporary Economics	3	-
GSB 346	Consumer Choice and Behavior	3	-
GSC	Humanities (select)[1]	-	3
GSE	Human Health and Well Being	-	2
ACCT 222	Accounting II	-	3
SCR 101A	Keyboarding	3	-
GS	Electives	4	4
		16	15

[1]Refer to the section General Studies for the Transfer Student.

Business Education (Non-Certification Business Occupations Teaching) As A Major

The student is required to complete 53 semester hours in a combination of general courses in business and in courses in one of these business concentrations: (1) office; (2) accounting; (3) data processing; (4) marketing; (5) management. Work experience credit will be accepted in lieu of any of the business courses. Education requirements involve 22 semester hours in such course work as planning cooperative programs, working with adults, and specific methodology in teaching the business occupation.

CHEMISTRY[1]

College of Education
(Bachelor of Science)

Coordinator of Teacher Education Services
Telephone - 618-536-2329
Wham Building, Room 108

The Department of Chemistry offers three concentrations in chemistry. The Bachelor of Science degree with certification by the American Chemical Society is recommended for those who wish to become professional chemists. The Bachelor of Arts degree involves less work in chemistry. This program is recommended to students who wish to complete a concentration in chemistry, but who plan on eventually going into other professional areas such as medicine, dentistry, etc.

The Bachelor of Science degree in Education is administered by the College of Education. It is provided for those who wish to become secondary school chemistry teachers.

First Year		Fall	Spring
GSB 212, 300, or 301	American Government or U.S. History	-	4
GSC	Humanities (select)2	3	-
GSD 101	English Composition	3	-
GSD 117, 118, or 119	Writing (select)2	-	2
GSE 201	Healthful Living	-	2
GSE	Human Health and Well Being--Activity	-	2
*Chem 224, 225 and	Introduction to Chemical Principles and Lab and	7	-
GS or	General Studies Elective[2]	-	4
*Chem 222a,b	Introduction to Chemical Principles	(4)	(4)
*Math 111	College Algebra and Trigonometry	5	-
		18(15)	14

Second Year		Fall	Spring
GSA	Science (select)2	-	3
GSB 202	Introduction to Psychology	3	-
GSC	English elective in Humanities (select)2	3	-
GSB	Social Science (select)[2]	-	3
GSC	Humanities (select)2	-	3
GSD 153	Public Speaking	-	2
Math 150	Calculus I	4	-
Ed 201	Teacher's Role in Public School Education	1	-
Chem 226	Introduction to Quantitative Chemical Principles	5	-
Chem	Electives	-	4
		16	15

*Approved substitutes for General Studies.

[1]See also the program under College of Science.

[2]Refer to the section General Studies for the Transfer Student.

For specific major requirements see the Undergraduate Catalog.

Chemistry As A Major

To include the following courses required for certification: GSB 202, Introduction to Psychology, GSB 212, Introduction to American Government and Politics OR GSB 300 or 301, History of the United States; GSD 101, English Composition; GSD 117, 118, 119, Expository, Technical, or Creative Writing; GSD 153, Public Communication; GSE 100-114 (2 hours), Physical Education Activities; GSE 201, Healthful Living; One additional English course (GSC, GSD, or departmental); Mathematics 111, (or Mathematics 110).

Departmental substitutions in General Studies: For GSA 101 - Physics 203, 204, or 205; for GSA 106 - Chemistry 224; for GSA 107 - Chemistry 225; for GSD 107 (see above) - Mathematics 111.

CHEMISTRY AND BIOCHEMISTRY

College of Science
(Bachelor of Arts or Bachelor of Science)

Dr. David Smulbach,
Department Executive Officer
Telephone - 618-453-5721
Neckers Building, Room 224

The Department of Chemistry and Biochemistry has a long and distinguished record for its programs at the undergraduate level. These courses are designed to give thorough training in theory and practice. Three undergraduate degrees are offered allowing a student to select a program best suited to his or her future goals.

The Bachelor of Science degree from the College of Science is for those who will prepare for graduate school or who plan to be professional chemists. Those completing this degree meet the certification requirements of the American Chemical Society.

The Bachelor of Arts degree, also from the College of Science, offers the student greater choice in selecting his or her program. One option gives the student the minimum preparation for graduate work in Chemistry or Biochemistry; another prepares for medicine, dentistry and other health sciences.

The Bachelor of Science in Education with a major in chemistry is administered by the College of Education.

A suggested beginning program for departmental majors is:

First Year		Fall	Spring
Biol	Biological Sciences (not GSA)[1]	3	3
*Chem 224, 225 or Chem 222a,b	Introduction to Chemical Principles	7 (4)	- (4)
Chem 226	Intro. to Quantitative Chemical Principles	-	5
GSD 101	English Composition	3	-
GSD 153	Public Speaking	- (3)	3 (-)
GSD 118	Technical Report Writing	-	2
Math 111	College Algebra and Trigonometry[1]	5	-
Math 150	Analytic Geometry and Calculus[1]	-	4
		18	15 (16)

Second Year		Fall	Spring
Chem 344	Organic Chemistry	4	-
Chem 345	Laboratory Techniques	2	-
Chem 346	Organic Chemistry	-	2
Chem 349	Laboratory Technique	-	3
Math 250	Calculus II	-	3
*FL	(German Recommended)[1]	4	4
*Phys 205, 255	University Physics & Lab	4	4
GSB	Select[2]	3	-
		17	16

*Approved substitutes for General Studies.

[1]Students in the College of Science must take one year of foreign language, one year of math, 6 semester hours of physical sciences, and 6 semester hours of biological sciences. German is required by the American Chemical Society.

[2]Refer to section General Studies for the Transfer Student.

Third and Fourth Years

The last two years of a student's program concentrate on specific professional objectives, and on fulfilling remaining General Studies requirements. The B.S. in the College of Science requires a year of calculus based physical chemistry, a course in instrumental analysis and advanced courses from biochemistry, inorganic chemistry, organic chemistry or physical chemistry. The B.A. degree is somewhat less demanding and the available options allow a program to be tailored to the needs of the individual.

Chemistry As A Major

Our Faculty consists of 23 Ph.D.'s; our building is quite new, and our teaching equipment is modern. We take pride in the quality of professional training that is available to our students. Those who are interested in careers in research or college teaching will continue their education in an appropriate graduate school. Others may enter professional schools or select immediate employment in the industry. The chemist typically finds work in private or government laboratories, and his or her activities may be in research and development, sales, or analysis and control of manufacturing processes.

Representative First Job Titles: Research-Pharmaceutical, Biochemist, Biochemical Technologist, Research Chemist, Blood Chemistry Technician, Quality Control Chemist, Analytical Chemist, Organic Chemist, Inorganic Chemist, Physical Chemist, Food Chemist, Soil Chemist, Agricultural Chemist, Paint Chemist, Chemical Laboratory Technologist, Dye Chemist, Geochemist, Glass Chemist, Industrial Alcohols Chemist, Leather Chemist, Manufacturer's Representative, Nuclear Chemist, Product Studies and Testing Chemist, Textile Chemist, Water Purification Chemist.

CHILD AND FAMILY
(Early Childhood-Preschool Certification Program)
Division of Human Development
(Bachelor of Science)

Dr. Michael Zunich
Division Executive Officer
Telephone - 618-536-5542
Quigley Hall, Room 116F
College of Human Resources

The preschool early childhood specialization has been specifically designed to prepare future teachers of children under six and will lead to certification by the State of Illinois. This program is jointly offered by the Department of Curriculum, Instruction, and Media in the College of Education, under the title Early Childhood Education.

First Year		Fall	Spring
GSA	Science (select)	3	3
*GSB 202	Introduction to Psychology	3	-
GSB	Social Science (select)	-	3
**GSC	Humanities (Art and Music are required)	3	3
GSD 101	English Composition	3	-
*GSD 117 or 119	Expository or Creative Writing	-	2
*GSD 152, 153	Interpersonal Communication or Public Speaking	-	2 (3)
F&N 100	Fundamentals of Nutrition	3	-
*GSE 201	Healthful Living	-	2
		15	15 (16)

Second Year		Fall	Spring
GSA	Science (select)	3	-
*GSB 212 or 300 or 301	Intro. to American Government & Politics or Origins of Modern America (1492-1877) or Modern America from 1877 to present	3	-
GSC	Humanities (select)	3	3
GSD	Mathematics	-	4
GSE	Human Health and Well Being (Activity)	1	1
C&F 227	Marriage and Family Living	3	-
C&F 237	Child Development	3	-
Elective		-	3
*Psyc 301	Child Psychology	-	3
		16	14

*Required General Studies. See section on General Studies for the transfer student.

**Under Humanities - Music 101 is to be substituted for GSC 100 for certification. Art may be GSC 101, 204, 205, or Art 100.

The special education preschool concentration is being offered as a special option.

Faculty have varied interests in Child Development/Family Relations, retardation, motivation of the child, sex education.

Excellent facilities - Child Development Laboratory with observation booth.

Representative First Job Titles: Nursery School Director, Day Care Center Director, Child Care Specialist, Home Economics Extension Specialist, Recreational Leader, Residential Life Supervisor, Preschool Director, Child Behavior Studies Specialist, Child Welfare Studies Specialist, Child Placement Studies Specialist, Family Welfare Studies Specialist, Cultural Studies Specialist, Sales Trainee, Children's Programs Organizer, Child Development Specialist, Minority Groups & Race Relations Studies Specialist, Population Studies Specialist, Teacher (Pre-School).

CHILD AND FAMILY
(Preschool Directors and Teachers,
Child Care Specialists in Social
Services, Residential Life
Directors and Supervisors, Infant Care Specialists)
Division of Human Development
College of Human Resources
(Bachelor of Science)

Dr. Michael Zunich
Division Executive Officer
Telephone - 618-536-5541
Quigley Hall, Room 116F

Within a major in Child and Family, the curriculum offers specialization in Pre-School Programs. These courses offer basic background leading to position as nursery school director or teacher in private schools, colleges and universities and day care centers; director or teacher in residential living facilities for exceptional children; child care specialists with social, public health and welfare agencies; home economics extension specialists in child care; and recreational leaders.

First Year		Fall	Spring
GSA	Science (select)	3	3
*GSB 202	Introduction to Psychology	3	-
*GSB 203	The Sociological Perspective	-	3
GSC	Humanities (select)	3	3
GSD 101	English Composition	3	-
GSD 117,118, or 119	Writing	-	2
GSD 153	Public Speaking	-	3
F&N 100	Fundamentals of Nutrition	3	-
GSE	Human Health and Well Being (select)	-	2
		15	16

Second Year		Fall	Spring
GSA	Science (select)	3	-
GSB	Social Science (select)	-	3
GSC	Humanities (select)	3	-
GSD	Mathematics	-	4
GSE	Human Health and Well Being	-	1
C&F 227	Marriage and Family Living	3	-
C&F 237	Child Development	3	-
Elective		3	4
Psyc 301	Child Psychology	-	3
		15	15

*Required General Studies. See section on General Studies for the transfer student.

Child And Family As A Major

No minor required.

Flexibility of program provides for specialization in the areas of direct care of children, teaching, and community development related services.

Graduate degree available.

Faculty have varied interests in Child Development/Family Relations, retardation, motivation of the child, sex education, child abuse.

Excellent facilities - Child Development Laboratory with observation booth.

Representative First Job Titles: Nursery School Director, Day Care Center Director, Child Care Specialist, Home Economics Extension Specialist, Recreational Leader, Residential Life Supervisor, Preschool Director, Child Behavior Studies Specialist, Child Welfare Studies Specialist, Child Placement Studies Specialist, Family Welfare Studies Specialist, Cultural Studies Specialist, Sales Trainee, Children's Programs Organizer, Child Development Specialist, Minority Groups & Race Relations Studies Specialist, Population Studies Specialist, Teacher (Pre-School)

CINEMA AND PHOTOGRAPHY
(Cinema and Photography Specialization)
College of Communications and Fine Arts
(Bachelor of Arts)

Dr. William Horrell
Acting Chairperson
William McHughes, Advisor
Telephone - 618-453-2682
Communications Bldg-North Wing

Cinema and Photography courses provide the undergraduate student with a substantial background in the history, theory, and practice of photographic communications. The six specializations are structured to make available a strong foundation for both professional and educational careers in film and photography, to explore the social implications of still and moving pictures, and to provide opportunity for the study of both cinema and still photography as media for personal expression. In all instances, programs are tailored to the interests and career plans of the individual student.

First Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB	Social Studies (select)[1]	3	3
GSC	Humanities (select)[1]	3	3
GSD 101	English Composition	3	-
GSD	Mathematics (select)[1]	-	4
GSD 117, 118 or 119	Writing (select)[1]	-	2
GSD 152 or 153	Interpersonal Communication or Public Speaking	2 (3)	-
GSE	Human Health and Well Being (select)[1]	2	2
		16 (17)	17

Second Year		Fall	Spring
GSA	Science (select)[1]	-	3
GSB	Social Studies (select)[1]	3	-
GSC	Humanities (select)[1]	-	3
GS Elective	From A, B or C (select)[1]	3	-
*C&P 310	History of Still Photography	3	-
*C&P 311	Contemporary Photography	-	3
*C&P 320	Basic Photography	4	-
*C&P 322	Color Photography	-	4
*C&P 360	Film Analysis	3	-
*C&P 368	Introduction to Cinema Theory	-	3
		16	16

[1]Refer to section General Studies for the Transfer Student.

*Requirements for Cinema and Photography specialization.

Cinema And Photography As A Major

This department is recognized by national Photographic organizations as one of the leading departments in the country.

A grade of C is required in prerequisite courses and a 2.0 average must be maintained in cinema and photography courses in order to remain in the concentration.

No minor required. No foreign language required. The Master of Fine Arts degree in Cinema and Photography is also available. A graduate degree in Public Visual Communication is available in cooperation with the department of Radio-TV.

Students must successfully complete the core requirements and portfolios and/or films must be submitted for entrance into certain courses.

Students purchase supplies for many cinema and photography courses. In courses which involve analysis and screening of a number of films, a screening fee is assessed. Lab fees may be required for certain other courses.

The University reserves the right to retain examples of the work of each student in each photography class and to make and retain prints of all films made as part of course work. Such photographs and films become part of a permanent departmental collection from which exhibitions may be prepared.

Representative First Job Titles: Studio Assistant, Illustrator, Cameramen, Painting & Publication Officer, Visual Information Specialist, Color Technician, Developer, Printer, Retoucher, Sales Manager, Photochecker & Assembler, Chemical Mixer, Advertising Agent, Newsfilm Editor, Film Industry Business Assistant, Film Production Staff, Film Planner, Free Lance Photographer, Documentary Film Specialist, Quality Control Officer, Film Numberer, Film Stripper.

CINEMA AND PHOTOGRAPHY
(Cinema - Film Production)
College of Communications and
Fine Arts
(Bachelor of Arts)

Dr. William Horrell
Acting Chairperson
William McHughes, Advisor
Telephone - 618-453-2682

Cinema and Photography courses provide the undergraduate student with a substantial background in the history, theory, and practice of photographic communications. The six specializations are structured to make available a strong foundation for both professional and educational careers in film and photography, to explore the social implications of still and moving pictures, and to provide opportunity for the study of both cinema and still photography as media for personal expression. In all instances, programs are tailored to the interests and career plans of the individual student.

First Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB	Social Studies (select)[1]	3	3
GSC	Humanities (select)[1]	3	3
GSD 101	English Composition	3	-
GSD	Mathematics (select)[1]	-	4
GSD 117, 118 or 119	Writing (select)[1]	-	2
GSD 152 or 153	Interpersonal Communication or Public Speaking	2 (3)	-
GSE	Human Health and Well Being (select)[1]	2	2
		16 (17)	17

Second Year		Fall	Spring
GSA	Science (select)[1]	-	3
GSB	Social Studies (select)[1]	3	-
GSC	Humanities (select)[1]	-	3
GS Elective	From A, B or C (select)[1]	3	-
*C&P 360	Film Analysis	2	-
*C&P 368	Introduction to CinemaTheory	-	3
*C&P 355, 356	Film Production I & II	4	4
C&P Electives		3	3
		15	16

[1]Refer to section General Studies for the Transfer Student.

*Requirements for Cinema - Film Production.

Cinema And Photography As A Major

This department is recognized by national Photographic organizations as one of the leading departments in the country.

A grade of C is required in prerequisite courses and a 2.0 average must be maintained in cinema and photography courses in order to remain in the concentration.

No minor required. No foreign language required. The Master of Fine Arts degree in Cinema and Photography is also available. A graduate degree in Public Visual Communication is available in cooperation with the Department of Radio-TV.

Students must successfully complete the core requirements and portfolios and/or films must be submitted for entrance into certain courses.

Students purchase supplies for many cinema and photography courses. In courses which involve analysis and screening of a number of films, a screening fee is assessed. Lab fees may be required for certain other courses.

The University reserves the right to retain examples of the work of each student in each photography class and to make and retain prints of all films made as part of course work. Such photographs and films become part of a permanent departmental collection from which exhibitions may be prepared.

Representative First Job Titles: Studio Assistant, Illustrator, Cameramen, Painting & Publication Officer, Visual Information Specialist, Color Technician, Developer, Printer, Retoucher, Sales Manager, Photochecker & Assembler, Chemical Mixer, Advertising Agent, Newsfilm Editor, Film Industry Business Assistant, Film Production Staff, Film Planner, Free Lance Photographer, Documentary Film Specialist, Quality Control Officer, Film Numberer, Film Stripper.

CINEMA AND PHOTOGRAPHY
(Film History/Theory/Criticism)
College of Communications and
Fine Arts
(Bachelor of Arts)

Dr. William Horrell
Acting Chairperson
William McHughes, Advisor
Telephone - 618-453-2682

Cinema and Photography courses provide the undergraduate student with a substantial background in the history, theory, and practice of photographic communications. The six specializations are structured to make available a strong foundation for both professional and educational careers in film and photography, to explore the social implications of still and moving pictures, and to provide opportunity for the study of both cinema and still photography as media for personal expression. In all instances, programs are tailored to the interests and career plans of the individual student.

First Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB	Social Studies (select)[1]	3	3
GSC	Humanities (select)[1]	3	3
GSD 101	English Composition	3	-
GSD	Mathematics (select)[1]	-	4
GSD 117, 118 or 119	Writing (select)[1]	-	2
GSD 152 or 153	Interpersonal or Public Communication	2 (3)	-
GSE	Human Health and Well Being (select)[1]	2	2
		16 (17)	17

Second Year		Fall	Spring
GSA	Science (select)[1]	-	3
GSB	Social Studies (select)[1]	3	-
GSC	Humanities (select)[1]	-	3
GS Elective	From A, B or C (select)[1]	3	-
*C&P 368	Introduction to Cinema Theory	-	3
*C&P 355	Film Production I	4	-
*C&P 360	Film Analysis	-	3
C&P Electives		6	4
		16	16

[1]Refer to section General Studies for the Transfer Student.

*Requirements for Film History/Theory/Criticism.

Cinema And Photography As A Major

This department is recognized by national Photographic organizations as one of the leading departments in the country.

A grade of C is required in prerequisite courses and a 2.0 average must be maintained in cinema and photography courses in order to remain in the concentration.

No minor required. No foreign language required. The Master of Fine Arts degree in Cinema and Photography is also available. A graduate degree in Public Visual Communication is available in cooperation with the Department of Radio-TV.

Students must successfully complete the core requirements and portfolios and/or films must be submitted for entrance to certain courses.

Students purchase supplies for many cinema and photography courses. In courses which involve analysis and screening of a number of films, a screening fee is assessed. Lab fees may be required for certain other courses.

The University reserves the right to retain examples of the work of each student in each photography class and to make and retain prints of all films made as part of course work. Such photographs and films become part of a permanent departmental collection from which exhibitions may be prepared.

Representative First Job Titles: Studio Assistant, Illustrator, Cameramen, Painting and Publication Officer, Visual Information Specialist, Color Technician, Developer, Printer, Retoucher, Sales Manager, Photochecker & Assembler, Chemical Mixer, Advertising Agent, Newsfilm Editor, Film Industry Business Assistant, Film Production Staff, Film Planner, Free Lance Photographer, Documentary Film Specialist, Quality Control Officer, Film Numberer, Film Stripper.

CINEMA AND PHOTOGRAPHY
(Photojournalism Specialization)
College of Communications and Fine Arts
(Bachelor of Arts)

Dr. William Horrell
Acting Chairperson
William McHughes, Advisor
Telephone-618-453-2682
Communications Building, North

Cinema and Photography courses provide the undergraduate student with a substantial background in the history, theory, and practice of photographic communications. The six specializations are structured to make available a strong foundation for both professional and educational careers in film and photography, to explore the social implications of still and moving pictures, and to provide opportunity for the study of both cinema and still photography as media for personal expression. In all instances, programs are tailored to the interests and career plans of the individual student.

First Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB	Social Studies (select)[1]	3	3
GSC	Humanities (select)[1]	3	3
GSD 101	English Composition	3	-
GSD	Mathematics (select)[1]	-	4
GSD 117, 118 or 119	Writing (select)[1]	-	2
GSD 152 or 153	Interpersonal Communication or Public Speaking	2 (3)	-
GSE	Health and Physical Development (select)[1]	2	2
		16 (17)	17

Second Year		Fall	Spring
GSA	Science (select)[1]	-	3
GSB	Social Studies (select)[1]	3	-
GSC	Humanities (select)[1]	-	3
GS Elective	From A, B or C (select)[1]	3	-
*C&P 310	History of Still Photography	3	-
*C&P 311	Contemporary Photography	-	3
*C&P 320	Basic Photography	4	-
*Jrnl 310	Writing for the Mass Media	3	-
*Jrnl 311	Reporting and News Writing	-	3
Jrnl Elective		-	4
		16	16

[1]Refer to section General Studies for the Transfer Student.

*Requirements for Photojournalism Specialization.

See also Photojournalism under School of Journalism.

Cinema And Photography As A Major

This department is recognized by national Photographic organizations as one of the leading departments in the country.

A grade of C is required in prerequisite courses and a 2.0 average must be maintained in cinema and photography courses in order to remain in the concentration.

No minor required. No foreign language required. The Master of Fine Arts degree in Cinema and Photography is also available. A graduate degree in Public Visual Communication is available in cooperation with the Department of Radio-TV.

Students must successfully complete the core requirements and portfolios and/or films must be submitted for entrance into certain courses.

Students purchase supplies for many cinema and photography courses. In courses which involve analysis and screening of a number of films, a screening fee is assessed. Lab fees may be required for certain other courses.

The University reserves the right to retain examples of the work of each student in each photography class and to make and retain prints of all films made as part of course work. Such photographs and films become part of a permanent departmental collection from which exhibitions may be prepared.

Representative First Job Titles: Studio Assistant, Illustrator, Cameramen, Painting & Publication Officer, Visual Information Specialist, Color Technician, Developer, Printer, Retoucher, Sales Manager, Photochecker & Assembler, Chemical Mixer, Advertising Agent, Newsfilm Editor, Film Industry Business Assistant, Film Production Staff, Film Planner, Free Lance Photographer, Documentary Film Specialist, Quality Control Officer, Film Numberer, Film Stripper.

CINEMA AND PHOTOGRAPHY
(Professional Photography)
(Still Photography - Fine Arts)
College of Communications and Fine Arts
(Bachelor of Arts)

Dr. William Horrell
Acting Chairperson
William McHughes, Advisor
Telephone - 618-453-2682
Communications Bldg, North Wing

Cinema and Photography courses provide the undergraduate student with a substantial background in the history, theory, and practice of photographic communications. The six specializations are structured to make available a strong foundation for both professional and educational careers in film and photography, to explore the social implications of still and moving pictures, and to provide opportunity for the study of both cinema and still photography as media for personal expression. In all instances, programs are tailored to the interests and career plans of the individual student.

First Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB	Social Studies (select)[1]	3	3
GSC	Humanities (select)[1]	3	3
GSD 101	English Composition	3	-
GSD	Mathematics (select)[1]	-	4
GSD 117, 118 or 119	Writing (select)[1]	-	2
GSD 152 or 153	Interpersonal Communication or Public Speaking	2 (3)	-
GSE	Human Health and Well Being (select)[1]	2	2
		16 (17)	17

Second Year		Fall	Spring
GSA	Science (select)[1]	-	3
GSB	Social Studies (select)[1]	3	-
GSC	Humanities (select)[1]	-	3
GS Elective	From A, B or C (select)[1]	3	-
*C&P 310	History of Still Photography	3	-
*C&P 311	Contemporary Photography	-	3
*C&P 320	Basic Photography	4	-
*C&P 322	Color Photography	-	4
C&P Electives		3	3
		16	16

[1]Refer to section General Studies for the Transfer Student.

*Requirements for Professional Photography and Still Photography - Fine Arts.

Cinema And Photography As A Major

This department is recognized by national Photographic organizations as one of the leading departments in the country.

A grade of C is required in prerequisite courses and a 2.0 average must be maintained in cinema and photography courses in order to remain in the concentration.

No minor required. No foreign language required. The Master of Fine Arts degree in Cinema and Photography is also available. A graduate degree in Public Visual Communications is available in cooperation with the Department of Radio-TV.

Students must successfully complete the core requirements and portfolios and/or films must be submitted for entrance into certain courses.

Students purchase supplies for many cinema and photography courses. In courses which involve analysis and screening of a number of films, a screening fee is assessed. Lab fees may be required for certain other courses.

The University reserves the right to retain examples of the work of each student in each photography class and to make and retain prints of all films made as part of course work. Such photographs and films become part of a permanent departmental collection from which exhibitions may be prepared.

Representative First Job Titles: Studio Assistant, Illustrator, Cameramen, Painting and Publication Officer, Visual Information Specialist, Color Technician, Developer, Printer, Retoucher, Sales Manager, Photochecker & Assembler, Chemical Mixer, Advertising Agent, Film Industry Business Assistant, Film Production Staff, Film Planner, Free Lance Photographer, Documentary Film Specialist, Quality Control Officer, Film Numberer, Film Stripper.

CLASSICS
College of Liberal Arts
(Bachelor of Arts)

Dr. Eugene Timpe - Chairperson
Telephone - 618-536-5571
Faner Building, Room 2082

Programs of study in foreign languages leading to the Bachelor of Arts degree in the College of Liberal Arts (with or without teacher certification) are offered in Classics, French, German, Russian, and Spanish.

Students majoring in a foreign language usually begin at the second or third-year level. The student who has completed two or more years of high school work in French, German, Russian, or Spanish may take a placement/proficiency exam.

In addition to the personal satisfaction and substantial growth in intellectual resources that come with mastery of a new language, there are numerous types of employment and career possibilities that are opened up by appropriate training in foreign languages. These can be classified as: 1) employment in non-language areas where language proficiency is a supporting factor, and 2) language-centered careers. Government agencies (federal, state, and many local), and businesses that have international dealings, employ great numbers of individuals on the basis of skills that are basically non-linguistic (scientists, engineers, librarians, social workers.

First Year		Fall	Spring
GSA	Science (select)1	-	3
GSB	Social Science (select)[1]	3	3
GSC	Humanities (select)[1]	3	-
GSD 101 & 117, 118 or 119	English Composition and Writing (select)[1]	3	2
CLAS 133a,b or CLAS 130a,b or CLAS 202a,b or CLAS 201a,b	Elementary Latin[2,3] or Greek[2,3] / Intermediate Latin[2,3] or Greek[2,3]	4 / (3)	4 / (3)
GSD	Math (select)[1]	-	4
GSE	Human Health and Well Being	2	-
		14	15

Second Year		Fall	Spring
GSA	Science (select)1	3	3
GSB	Social Science (select)[1]	-	3
Math or CS	Mathematics or Computer Science	3	-
GSD	Speech (select)[1]	2 (3)	-
CLAS	Classics Electives[5]	3	3
GSE	Human Health and Well Being (select)[1]	-	2
CLAS	Latin or Greek Language	4	4
		15-16	15

[1]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

[2]Two semesters (which is generall eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GSC credit and four hours may be used to complete the thirty hours which are required from GSA, GSB, or GSC. If no foreign language is required, then the student may choose the GSC option instead.

[3]Required by the major--two years of one language or one year of each.

[4]One of these courses may be used to partially fulfill the Liberal Arts requirement for students beginning college anywhere Fall 1978 or later.

[5]Required by the major.

Classics As A Major

A major in Classical Studies consists of 36 semester hours in courses on all levels. Electives may be chosen from specified courses in the departments of Anthropology, Art, History, Philosophy, Political Science, and Religious Studies. A minor in Classics consists of 15 semester hours.

NOTE: Foreign Language majors must satisfy College of Liberal Arts requirements. Transfer students who major in a foreign language must complete a minimum of 12 semester hours in language courses at SIUC.

Representative First Job Titles: Translator, Simultaneous Interpreter, Consecutive Interpreter, Visitors' Guide, Communications Specialist, Public Information Officer, Escort Interpreter, Conference Interpreter, International Relations Officer, Sales Representative, Writer, Editor, Publications Staff, Speech Writer, Archaeological Worker, Archival Worker, Museum Curator, Cultural Studies Specialist, Researcher, Exhibit Preparator.

CLOTHING AND TEXTILES
Apparel Design
Division of Comprehensive
Planning and Design
College of Human Resources
(Bachelor of Science)

Dr. Wayne L. St. John
Coordinator
Telephone - 618-536-7741
Quigley Hall, Room 311 D

The apparel design program in the Division of Comprehensive Planning and Design gives students training for design occupations either in an industrial setting or in a custom shop. Many careers in design-related businesses are also available to the graduate of this program. The variety of course offerings is outstanding, which provides the student with opportunity to develop individual skills and competencies.

First Year		Fall	Spring
GSA	Science (select)	3	-
GSA 106	Chemistry for NonScience Majors	-	3
GSD 101	English Composition	3	-
GSD 117 or 118	Expository or Technical Report Writing	-	2
CT 127	Clothing Construction	3	-
GSE	Human Health and Well Being (select)	-	1
Art 100a	Basic Studio	-	4
GSB 211	Contempory Economics	-	3
GSC	Humanities (select)	3	3
CT 150	Survey of Clothing	2	-
		14	16

Second Year		Fall	Spring
GSB 202	Introduction to Psychology	3	-
GSC 205	Innovation for the Contempory Environment	3	-
Art 200	Beginning Drawing	-	2
Art 100B	Basic Studio	-	4
GSD 152 or 153	Interpersonal Communication or Public Speaking	2 (3)	-
GSD	Mathematics (select)	-	4
GSE	Human Health and Well Being/(select)	2	1
CT 351	Fashion Motivation	3	-
CT 352	Family Clothing	3	-
CT 304	Textiles	-	4
		16	15

Third and Fourth Year

If not completed at the junior college level, Chemistry and CT 127 (Clothing Construction) must be taken the first semester the transfer student is at SIUC. Other courses taken during the last two years will include the professional apparel design courses within the department and electives.

This specialization is intended for the student interested in professional preparation in apparel design or allied design positions in either industrial or commercial fashion businesses. The courses available to the student cover textile information, fashion design, and skills required for developing original designs into patterns and completed garments. Courses in Clothing and Textiles are complemented by ones in art, business, and other areas in order to provide a suitable background for various career opportunities.

Representative First Job Titles: Family Expenditures Studies Specialist, Consumer Market Analyst, Consumer Relations Officer, Apparel Designer, Fashion Coordinator, Patterns Designer, Tailor, Clothing Economist, Fashion Merchandising Expert, Advertising Assistant, Retail Store Manager, Cost Analyst, Customer Services Specialist, Sales Agent, Purchasing Manager, Marketing Specialist, Textile Selector, Textile Laboratory Assistant, Customer Relations Specialist, Pattern Maker, Industrial Relations Specialist, Price Economist, Manufacturer's Representaive.

CLOTHING AND TEXTILES
(Retailing)
Division of Comprehensive
Planning and Design
College of Human Resources
(Bachelor of Science)

Dr. Wayne L. St. John,
Coordinator
Telephone - 618-536-7741
Quigley Hall, Room 311

The retailing program at Southern Illinois University at Carbondale is offered through the Division of Comprehensive Planning and Design. Professional and free elective hours make it possible for the student to choose the courses of greatest personal value.

First Year		Fall	Spring
GSA	Science (select)	3	-
GSA 106	Chemistry for NonScience Majors	-	3
GSD 101	English Composition	3	-
CT 150	Survey of Clothing	2	-
GSD 117, 118 or 119	Writing (select)	-	2
GSE	Human Health and Well Being (select)	-	1
GSC	Humanities (select)	3	3
GSB	Social Sciences (select)	3	3
Elective		-	3
		14	15

Second Year		Fall	Spring
Acct 210 or 211	Principles of Accounting	-	3
GSD 152 or 153	Interpersonal Communications or Public Speaking	2 (3)	-
GSC 205	Innovation for the Contempory Environment	3	-
GSB 202	Introduction to Psychology	3	-
GSB 211	Contemporary Economics	3	-
GSE	Human Health and Well Being (select)	2	-
CT 351	Fashion Motivation	3	-
CT 352	Family Clothing	3	-
CT 304	Textiles	-	4
GSD	Mathematics (select)	-	4
		16 (17)	15

Third and Fourth Year

If not completed at the junior college level, chemistry should be taken the first semester the transfer student is at SIUC. Other courses during the last two years will include additional work in marketing, administrative sciences and related business courses; core, electives and professional courses within the Clothing and Textiles Department; and elective hours. The retailing major should have some experience in a sales position before the junior year.

This specialization prepares students for a profession in retail stores, either as buyers or department managers. Other related retailing positions which are also available to the student include personnel, training, inventory control, and security.

Representative First Job Titles: Family Expenditures Studies Specialist, Consumer Market Analyst, Consumer Relations Officer, Apparel Designer, Fashion Coordinator, Patterns Designer, Tailor, Clothing Economist, Fashion Merchandising Expert, Advertising Assistant, Retail Store Manager, Cost Analyst, Customer Services Specialist, Sales Agent, Purchasing Manager, Marketing Specialist, Textile Selector, Textile Laboratory Assistant, Customer Relations Specialist, Pattern Maker, Industrial Relations Specialist, Price Economist, Manufacturer's Representative.

COMMERCIAL GRAPHICS--DESIGN
School of Technical Careers
(Associate in Art)

John L. Yack, Program Supervisor
Telephone - 618-536-6682
Blue Barracks

The advertising business is a growing field, presenting ever increasing opportunities for men and women who have creative and artistic ability. Trained people are needed to develop story illustrations, advertising layouts, billboard design, point-of-purchase displays, package designs, direct mail pieces, annual report designs, television commercials, title cards, finished lettering, fashion illustrations, airbrush and photo retouching and many others.

Students in this program develop multiple art skills so that they may qualify for initial positions in many different areas of advertising art and design. Each individual has a base upon which to build his or her career according to his or her own special interests and talents.

Each graduating design student is required to attain a 90% or better achievement on a vocabulary proficiency test, and to have compiled a professionally acceptable portfolio of work.

The student should expect to spend approximately $1,000-$1,200 for supplies, equipment, and materials over a two-year period.

An advisory committee whose members are active in the advertising and graphic design professions serves the program.

All faculty are professionals attracted from industry, hence are uniquely adept in the practical aspects of design.

First Year		Fall	Spring
CG 110	Art Appreciation	3	-
CG 120	Artistic Anatomy and Color Perception I	4	-
CG 122	Technical Drawing for Graphic Design	4	-
CG 124	Graphic Layout and Typography I	4	-
GSD 101	English Composition	3	-
GSD 153	Public Speaking	-	3
CG 130	Artistic Anatomy and Color Perception II	-	4
CG 132	Airbrush and Photo Retouching	-	3
CG 133	Copyfitting	-	1
CG 134	Graphic Layout and Typography II	-	4
STC 199	Individual Study (Photography)	-	2
GSB 200	Level 3 Elective (Psychology Recommended)	-	3
		18	20

Second Year		Fall	Spring
CG 210	Advertising Graphics	8	-
CG 224	Publication Graphics	8	-
STC 102	Technical Writing (Special Course for Majors)	2	-
CG 222	Graphic Design and Advertising Illustration	-	8
CG 215	Dimensional Design	-	8
CG 230	Job Orientation Seminar	-	1
		18	17

A minimum of 73 hours is required for this program.

Representative First Job Titles: Commercial Artist, Layout Artist, Sketch Artist, Paste-up Artist, Package Designer, Freelance Artist, Illustrator, Mechanical Artist, Publication Designer, Photo-retoucher.

COMMERCIAL GRAPHICS--PRODUCTION
School of Technical Careers
(Associate in Art)

Harry Soderstrom
Program Coordinator
Telephone - 618-985-4140

The growing printing and publishing field offers many career opportunities for trained production specialists and persons with mechanical skills and abilities in management areas.

The Commercial Graphics-Production student may concentrate on management and production coordination or upon specialties within production such as lithographic stripping and platemaking.

The student will gain experience in the most uptodate printing methods in a fully equipped shop. He or she will learn production and press procedures, lithographic photography, stripping, and platemaking, offset presswork, estimating and cost, and production and finishing processes.

The student who wishes to prepare for a career in management will study business law, office management and supervision, accounting, and other related subjects.

Interested students should contact the Program Coordinator Office to check on availability of program.

Representative First Job Titles: Typesetter Perforator Operator, Make-up Arranger, Platemaker, Photoengraver, Printing Press Operator, Camera Operators.

COMPUTER SCIENCE - A
College of Liberal Arts
(Bachelor of Arts)

Dr. Kenneth Danhof - Chairperson
Telephone - 618-536-2327
Faner 2126

Requirements for a major in computer science are specified in two alternative forms. The program under Option A is the more flexible, broadly based, and provides preparation for a wide range of careers as well as for graduate training in computer science. Option B is more specifically oriented toward preparing a student for a career in business and management information processing.

First Year		Fall	Spring
GSA	Science (select)[1]	3	3
Math 111	College Algebra and Trigonometry[2]	5	-
Math 150	Calculus I[3,5]	-	4
GSB	Social Science (select)[1]	3	3
GSC	Humanities (select)[1]	-	3
GSD 101 & 117, 118 or 119	English Composition[1] and Writing (select)[1]	3	2
GSE	Human Health and Well Being (select)[1]	2	-
CS	Introduction to Computer Programming[3]	-	3
		16	15

Second Year		Fall	Spring
CS 204	Advanced Programming Techniques[3]	3	-
CS 302	Assembly Language Programming[3]	-	4
Math 250	Calculus II[3]	4	-
Math 221	Introduction to Linear Algebra[3]	-	3
GSA	Science (select)[1]	3	-
GSB	Social Science (select)[1]	-	3
GSC or FL	Humanities (select)[1] or Foreign Language[4]	3 (4)	3 (4)
GSD	Speech (select)[1]	2 (3)	-
GSE	Human Health and Well Being (select)[1]	-	2
		15 (17)	15 (16)

[1]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

[2]Will substitute for general studies mathematics.

[3]Required by the major.

[4]Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GSC credit and four hours may be used to complete the thirty hours which are required from GSA, GSB, GSC. If no foreign language is required, then the student may choose the GSC option instead.

[5]This course may be used to partially fulfill the Liberal Arts requirement for students beginning college anywhere Fall 1978 or later.

CS 202 is a first course in programming using PL/I as a vehicle. CS 204 is a second course in programming which also uses PL/1 as a vehicle. CS 302 is an intensive assembly language programming course.

Mathematics courses: The basic calculus requirement for a CS major under Option A is 8 hours as defined by Math 150 and 250. These may be taken in the student's third year without retarding graduation but it is preferable that they be taken earlier. Math 251 is not required, it is a recommended elective. Note that a student with insufficient background may have to take a pre-calculus course such as Math 111 prior to taking Math 150.

Computer Science As A Major

The department offers courses covering the major areas of computer science. These courses constitute the basis for an undergraduate curriculum which prepares students for professional and technical careers in government and industry or for graduate work leading to advanced degrees. The curriculum includes such topics as programming, computer hardware and software systems, simulation, data management and computer applications to business and science. Students will be advised with respect to computer science courses by the department so that they may profitably pursue their academic and professional interests.

Representative First Job Titles: Programmer (Computer Programmer), Systems Analyst, Equipment Analyst, Computer Specialist, Process-Control Computers Scientist, Computer simulation Technician, Dealer Data Processing Personnel, Legislative Retrieval Specialist, Computer-Controlled Machinery Operator, Plant Protection Scientist, Safety Devices Operator, Security Devices Operator, Sales Representative, Computer Research Scientist, Consultant.

COMPUTER SCIENCE - B
College of Liberal Arts
(Bachelor of Arts)

Dr. Kenneth Danhof - Chairperson
Telephone - 618-536-2327
Faner 2126

The Department of Computer Science now offers a new undergraduate program leading to the Bachelor of Arts degree. The curriculum will provide a student with broad undergraduate training in computer science and will also permit concentration in particular areas of interest.

First Year		Fall	Spring
GSA	Science (select)[1]	3	-
Math 116	Finite Mathematics and Algebra[2,3]	5	-
Math 117	Finite Mathematics and Calculus[2,3]	-	4
GSB	Social Science (select)[1]	3	-
GSB 202	Introduction to Psychology	-	3
GSC	Humanities (select)[1]	-	3
GSD 101 & 117, 118 or 119	English Composition and Writing (select)[1]	3	2
GSE	Human Health and Well Being (select)[1]	2	-
CS 202	Introduction to Computer Programming[3]	-	3
		16	15

Second Year		Fall	Spring
CS 204	Advanced Programming Techniques[3]	3	-
CS 302	Assembly Language Programming[3]	-	4
GSA	Science (select)[1]	3	-
GSB	Social Science (select)[1]	-	3
GSC or FL	Humanities (select)[1] or Foreign Language[4]	3 (4)	3 (4)
GSD	Speech	2 (3)	-
Acct 221,222	Accounting I and II	3	3
		14 (16)	13 (14)

[1]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

[2]Mathematics Courses: Option B is a combination of finite mathematics and intuitive calculus which require less technical prerequisites. The requirement may be satisfied by taking Math 116, 117 or Mathematics 139, 140, the choice depending on the student's background in mathematics. One of these courses may substitute for GS Math, and the other may be used to partially fulfill the Liberal Arts requirement for students beginning college anywhere Fall 1978 or later.

[3]Required by the major.

[4]Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GSC credit and four hours may be used to complete the thirty hours which are required from GSA, GSB, or GSC. If no foreign language is required, then the student may choose the GSC option instead.

Requirements for a major in computer science are specified in two alternative forms. The program under Option A is the more flexible, broadly based, and provides preparation for a wide range of careers as well as for graduate training in computer science. Option B is more specifically oriented toward preparing a student for a career in business and management information processing.

CS 202 is a first course in programming using PL/I as a vehicle. CS 204 is a second course in programming which also uses PL/1 as a vehicle. CS 302 is an intensive assembly language programming course.

Computer Science As A Major

The department offers courses covering the major areas of computer science. These courses constitute the basis for an undergraduate curriculum which prepares students for professional and technical careers in government and industry or for graduate work leading to advanced degrees. The curriculum includes such topics as programming, computer hardware and software systems, simulation, data management and computer applications to business and science. Students will be advised with respect to computer science courses by the department so that they may profitably pursue their academic and professional interests.

Representative First Job Titles: Programmer (Computer Programmer), Systems Analyst, Equipment Analyst, Computer Specialist, Process-Control Computers Scientist, computer Simulation Technician, Dealer Data Processing Personnel, Legislative Retrieval Specialist, Computer-Controlled Machinery Operator, Plant Protection Scientist, Safety Devices Operator, Security Devices Operator, Sales Representative, Computer Research Scientist, Consultant.

CONSTRUCTION TECHNOLOGY--BUILDING
School of Technical Careers
(Associate of Applied Science)

Harold W. Osborn
Program Coordinator
Telephone - 618-529-1143
STC Carterville Campus

These courses provide training which will enable the individual to qualify for positions of greater opportunity and responsibility after relatively short periods of apprenticeship or trade experience in the fields of construction supervision, cost estimating, management, and building construction.

Field trips to nearby cities to study and observe various types of construction are made each school year. Allowance should be made for the purchase of small amounts of equipment and supplies.

First Year		Fall	Spring
STC 105a,b	Technical Mathematics	4	-
STC 107a,b	Applied Physics	-	4
Cst 102a	Drafting	4	-
Cst 103a	Construction Materials	4	-
Cst 104	Building Construction Surveying	-	4
Cst 110	Basic Construction I	7	-
Cst 111	Basic Construction II	-	7
Cst 125a	Statics and Strength of Materials	-	3
		19	18

Second Year		Fall	Spring
GSD 101	English Composition	3	-
ACCT 110	Applied Accounting	-	3
STC 102	Technical Writing	-	2
STC 103b	Construction Materials	4	-
Cst 125b	Statics and Strength of Materials	3	-
Cst 208	Construction Cost Estimating	-	3
Cst 210	Advanced Construction I	7	-
Cst 211	Advanced Construction II	-	7
Elective	Social Studies or Humanities	-	3
		17	18

Construction Technology As A Major

Light building construction offers a multitude of opportunities in the areas of management and supervision.

The student will learn basic construction principles, surveying, drafting and properties of construction materials. He or she will be able to develop construction details and working drawings, and to make construction cost estimates, including labor, materials, and schedules. The student will learn code requirements and specifications affecting mechanical equipment such as plumbing, heating, air conditioning, and illumination. He or she will acquire the knowledge necessary for basic management and business positions through the study of business fiscal management, technical writing, physical sciences, and mathematics.

The student in this program will have the benefit of a well-equipped work utilization laboratory.

A minimum of 72 hours credit is required for the associate degree.

Representative First Job Titles: Carpenter, Construction Engineering Aide, Building Materials Salesperson, Estimator, Construction Foreman, Assistant to Contract Supervisor, Inspector.

CORRECTIONAL SERVICES
School of Technical Careers
(Associate in Art)

James Hendricks
Program Coordinator
Telephone - 618-536-6682
Faner B 4343

A growing demand for trained correctional workers is being created by increasing emphasis on rehabilitation of criminal offenders. These people are needed both in institutions and in community-based corrections.

This correctional services program has the two-fold purpose of providing a broad-based social science type curriculum to both the person entering the field and to presently employed personnel who wish to upgrade skillls for advancement opportunities.

The student will learn the nature and effects of crime on both the perpetrator and the victim, methods used to combat crime in modern society, and various approaches to rehabilitation of the offender. He or she will spend one term in supervised internship working in a correctional agency or social service agency.

Persons already employed in the correctional field may enroll in the program on a part-time basis with the assurance that faculty members will help them to arrange classes compatibly with their work schedules.

Professionals in the field serve on an advisory committee which assists in the program.

A minimum of 62 hours credit is required for this major.

First Year		Fall	Spring
GSD 101	English Composition	3	-
CLE 103	Introduction to Criminal Justice	3	-
CLE 104	Treatment Methods in Criminal Justice	3	-
GSB 202	Introduction to Psychology	3	-
CLE 115	Interpersonal Relations in Criminal Justice	3	-
GSD 118	Technical Report Writing	-	2
CLE 106	Treatment Practicum	-	3
CLE 108	Supervision in Criminal Justice	-	3
GSB 203	The Sociological Perspective	-	4
GSD 153	Public Speaking	-	3
CLE 220	Probation, Parole and Community Based Corrections	-	3
		15	18

Second Year		Fall	Spring
GSB 212	Intro to American Government & Politics	4	-
CLE 105	Criminal Behavior	3	-
CLE 209	Criminal Law I	3	-
Electives	(From GSA, GSC or GSE)	4	-
CLE 210	Criminal Law II	-	3
CLE 218	Introduction to Corrections	-	3
CLE 215	Internship in Criminal Justice Practice	-	9
		14	15

Representative First Job Titles: Group Home Counselor, Correctional Officer, Probation Officer, Juvenile Officer, Volunteer Coordinator, Criminal Justice Planner.

DENTAL HYGIENE
School of Technical Careers
(Associate in Art)

Mary Edwards Callaghan
Program Coordinator
Telephone - 618-536-6682
STC Building, Room 18D

The dental hygienist is an important member of the dental health team, and is the only one other than the dentist who is permitted by law to work directly in the mouth of the patient. Both men and women enjoy the profession. All states require the dental hygienist to be licensed and to work under the supervision of a licensed dentist. The hygienist's area of responsibility includes oral prophylaxis (scaling and polishing of the teeth), chairside assisting, x-ray examinations, laboratory techniques, office and administrative procedures, dental health education, and other areas of preventive dentistry.

This program is fully accredited by the Council on Dental Education of the American Dental Association. Available facilities restrict first-year enrollment to 56 students. Interested persons should contact both the SIUC Office of Admissions and the dental hygiene faculty. Special application material is included in requirements for admission to the program. Applicants must take the Dental Hygiene Aptitude Test by November of the year preceding the fall in which they wish to enter in order to have the results evaluated with other required material, for Fall 1981 admission, the test must be taken no later than November 1980.

This test is sponsored by the American Dental Hygiene Assn., 666 N. Lake Shore Dr., Suite 1136 Chicago, IL 606ll (312-642-3954), and information on testing sites and dates is available from that organization.

All application materials to the University for Fall 1980 must be on file with the Admissions Office no later than January 16, 1981, and all application materials to the Dental Hygiene Program must be on file with the Dental Hygiene Program by February 13, 1981.

The dental hygiene student has expenses of about $2200 in addition to university tuition and fees. This covers the cost of instruments, uniforms, liability insurance, and a basic professional library; in addition they spend two weeks at the School of Dental Medicine in Alton, IL, for a seminar.

First Year		Fall	Spring
GSD 101	English Composition	3	-
GSD 153	Public Speaking	2	-
Chem 140a,b	Chemistry	4	4
DH 136	Cranial and Oral Anatomy	4	-
DH 137a,b	Pre-Clinical Dental Hygiene	5	5
DH 215	Ethics, Jurisprudence, & Office Management	1	-
Physio 301	Survey of Human Anatomy	-	4
GSA 209	Principles of Physiology	-	3
DH 133	Histology and Embryology	-	2
DH 218a	Dental Radiology	-	2
		19	20

Summer Session (8 weeks)

MICR 201	Elementary Microbiology	4
DH 217	Dental Nutrition	2
DH 209	Dental Hygiene Clinic	3
DH 218b	Dental Radiology	2
		11

Second Year		Fall	Spring
DH 138	Pathology	3	-
DH 220a,b	Community Dentistry	3	3
DH 201	Dental Materials and Assisting Techniques	4	-
DH 210a,b	Clinical DH and Radiology	6	6
DH 240	Dental Pharmacology and Anesthesia	2	-
DH 241	Periodontology	2	-
GSB 202	Intro to Psychology	-	3
GSB 203	The Sociological Perspective	-	4
DH 211	Seminar	-	2
		20	18

A minimum of 88 hours is required for this program.

Representative First Job Titles: Dental Hygienist, Researcher, Health Administrator.

DENTAL LABORATORY TECHNOLOGY
School of Technical Careers
(Associate in Science)

Dennis Laake
Program Coordinator
Telephone - 618-536-6682
STC Building, Room 18B

Dental Laboratory Technology is concerned with the construction of replacements for natural teeth which have been lost by disease or accident. A technologist trained in this art is called a Dental Laboratory Technician.

The relationship of the dental technician to the dentist is similar to that of the pharmacist to the physician or the optician to the eye specialist. Important members of the dental health team, students find their skills and knowledge are invaluable. They work under the guidance and instruction of the dentist, thus permitting the dentist to devote more of his or her time to chair-side operative and restorative dentistry.

The Dental Technology program includes extensive study covering all phases of dental laboratory technology and leads to an associate in technology degree.

The program was designed so that students would receive not only technical training but such general education courses as would prepare them for a socially complex world. It is for this reason that approximately one-third of the total curriculum consists of general education courses.

The technical curriculum covers a complete study of dental morphology, fabrication of dental restorations and applicances in all the prosthetic phases of dentistry, dental material, professional ethics and other related subjects.

First Year		Fall	Spring
GSD 101	English Composition	3	-
GSA 106	Chemistry for Non-Science Majors	3	-
GSA 209	Principles of Physiology	-	3
DT 102*	Tooth Anatomy	4.5	-
DT 103a*	Complete Dentures	4.5	-
DT 103b*	Advanced Complete Dentures	4.5	-
DT 104a*	Removable Partial Dentures	-	4.5
DT 104b*	Advanced Removable Partial Dentures	-	4.5
DT 113a	Science of Dental Materials	-	2
DT 128	Oral Anatomy	-	1
DT 143	Orientation to Dental Technology	1	-
DT 106	Dental Orthodontics & Pedodontics	-	4.5
		20.5	19.5

Second Year		Fall	Spring
GSD 152	Interpersonal Communication	-	2
STC 102	Technical Writing	2	-
ACCT 110	Applied Accounting	-	3
DT 113b	Science of Dental Materials	2	-
DT 202	Professional Ethics	1	-
DT 200	Dental Occlusion	4.5	-
DT 204a*	Beginning Crown and Bridge	4.5	-
DT 204b*	Advanced Crown and Bridge	4.5	-
DT 206a*	Dental Ceramics	-	4.5
DT 206b*	Advanced Dental Ceramics	-	4.5
DT 210	Dental Lab Specialty	-	4.5
		18.5	18.5

*Five-week module.

Dental Laboratory Technology As A Major

This program is the first of its kind in the state of Illinois which is accredited by the Council on Dental Education and Commission on Accreditation of the American Dental Association.

The School of Technical Careers has been a pioneer in approved training for dental technicians and the curriculum and staff are fully accredited by the Council on Dental Education and Commission on Accreditation of the American Dental Association. The Council's standards are sufficiently high to insure that the graduate of such an accredited program has the best education it is possible to give in the time allocated. The staff is highly qualified for teaching this portion of the dental field, having enjoyed many years of experience in dental education and technology education. This is backed by years of practical experience in the entire field. Graduates are eagerly sought by the owners of the many ethical laboratories throughout the United States.

Each student is required to purchase a kit of instruments, at a cost of approximately $225 per year, which he or she will retain after graduation.

Representative First Job Titles: Dental Technician, Laboratory Manager, Sales Representative, Department Manager.

DESIGN
Division of Comprehensive
Planning and Design
College of Human Resources
(Bachelor of Arts)

Mr. Paul Lougeay
Divisional Executive Officer
Telephone - 618-453-3734
Quigley Hall, Room 128C

The faculty and students of the Design Program are a part of the Division of Comprehensive Planning and Design.

Design is defined as devising innovative courses of action to change existing situations into preferred situations. This definition translated into the educational purpose of the Design program means that our prime responsibility is to develop within our participants generalized abilities to cope effectively with multi-faceted design problems.

First Year		Fall	Spring
GSA	Science (select)	3	3
GSB	Social Studies (select)	3	3
GSC	Humanities (select)	-	3
GSC 205	Innovation for the Contemporary Environment	3	-
GSD 101	English Composition	3	-
GSD 117, 118, 119	Writing (select)	-	2
GSD 152, 153	Interpersonal Communication or Public Speaking	3	-
GSE	Human Health and Well Being (select)	1	1
Des 102	Design Fundamentals	-	5
		15	17

Second Year		Fall	Spring
GSA	Science (select)	3	-
GSB	Social Studies (select)	-	2
GSC	Humanities (select)	3	3
GSD 107	Intermediate Algebra	4	-
GSE	Human Health and Well Being (select)	1	1
Des 201	Survey of Design	-	3
Elective		5	5
		16	15

Third and Fourth Years

If not completed at the junior college level, GSC 205 should be taken the first semester the transfer student is at SIUC. Other courses taken the last two years will include additional design core, professional preparatory and elective courses. Two options are available: product design and visual communications.

Product design prepares a student for careers designing a very broad range of items for a great diversity of uses, such as medical/therapeutic products, playground/recreational equipment, toys and games, and household artifacts.

Visual communications prepares a student to design a variety of items meant specifically to carry a message to the user/buyer. These items include such things as new letterheads and forms with logos for a corporation, point-of-sale displays and advertising, layout of proposals, brochures and annual reports, signage, and environmental communications.

Representative First Job Titles: Story Illustrator, Advertising Layouts Specialist Billboard Designer, Displays Organizer, Greeting Cards Designer, Annual Report Designer, Television Commericals Specialist, Title Cards and Set Designer, Fashion Illustrator, Architectural Assistant, Airbrush & Photo Retouching Artist, Graphic Processes Specialist, Graphic Designer, Advertising Illustrator, Copywriter, Fashion Designer, Community Planner, Typographic Designer, Cameraman, Technical Illustrator, Systems Evaluator, Technical Sales Representative, Publications Assistant, Manufacturer's Representative.

EARLY CHILDHOOD EDUCATION
(K-3)
College of Education
(Bachelor of Science)

Dr. Billy Dixon, Chairperson
Telephone - 618-453-2239
Wham Building, Room 327

Coordinator of Teacher Education Services
Telephone - 618-536-2329
Wham Building, Room 108

Following are the requirements for the Bachelor of Science degree with a concentration in early childhood education which meet the minimum requirements for a standard Elementary School Certificate.

In addition to general university and College of Education requirements, a student must meet all prerequisites to student teaching and should study the section in the Undergraduate Catalog which lists such requirements.

First Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB	Social Studies (select)[1]	3	3
GSC 100	Music Understanding	-	2
GSC 101	Introduction to Art	3	-
GSD 101	English Composition	3	-
GSD 152	Interpersonal Communication	2	-
GSD 117	Expository Writing	-	2
GSE	Human Health and Well Being (select)[1]	2	-
GSE 201	Healthful Living	-	2
Ed 201	Teacher's Role in Public School Education	-	1
CIM 213	Understanding the Elementary School Child	-	3
		16	15

Second Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB 202	Introduction to Psychology	3	-
GSB 300 or 301	History of U.S.	-	3
GSC	Literature (select)[2] (or English required)	3	-
Math 114	Algebraic and Arithmetic Systems	4	-
PE 202	Physical Activity for Children and Youth	3	-
Math 314	Math for Elementary Teachers	-	3
Mus 101	Music Fundamentals	-	3
GSC	Fine Arts	-	3
		16	15

[1]See section on General Studies for the Transfer Student.

[2]Refer to University Catalog for detailed explanation of additional general education and departmental requirements.

Early Childhood Education (K-3) As A Major

Students who plan to teach grades K-3 should major in Early Childhood Education.

Students should also refer to the section in this handbook specifying the requirements for entrance into the Formal Teacher Education Program.

EARLY CHILDHOOD
(Preschool Certification Program
College of Education
(Bachelor of Science)

Coordinator of Teacher Education Services
Telephone - 618-536-2329
Wham Building, Room 108

For the last decade educators have become increasingly aware of the importance of providing quality care and guidance for the preschool child. This program has been designed for persons interested in the education of children 0-6 years of age. It is offered jointly by the College of Education and the College of Human Resources. Students following this program will meet state certification requirements.

First Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB 202	Introduction to Psychology	3	-
GSC 100	Music Understanding	2	-
GSC	Humanities (Art & Music are required)[2]	-	3
GSD 101	English Composition	3	-
GSD 117 or 119	Expository or Creative Writing	-	2
GSD	Mathematics	4	-
GSD	Speech (select)[1]	-	2
GSE	Human Health and Well Being (select)[1]	-	2
GSE 201	Healthful Living	-	2
Elective		-	1
		15	15

Second Year		Fall	Spring
GSA	Science (select)[1]	3	-
GSB 212	American Government	-	4
GSB 300 or 301	American History	3	-
GSC	Humanities (select)[1]	3	3
C&F 227	Marriage and Family Living	3	-
C&F 237	Child Development	3	-
F&N 100	Fundamentals of Nutrition	-	3
Psyc 301	Child Psychology	-	3
Electives		-	2
		15	16

[1]See section on General Studies for the Transfer Student.

[2]Under Humanities, Music 101 is to be substituted for GSC 100. Art may be GSC 101, 204, 205 or Art 100.

Refer to the Undergraduate Catalog for additional information on this program.

Specific General Studies courses listed are required for this program.

Faculty have varied interests in Child Development/Family Relations, retardation, motivation of the child, sex education.

Excellent facilities--Child Development Laboratory with observation booth.

ECONOMICS[1]
College of Education
(Bachelor of Science)

Coordinator of Teacher Education Services
Telephone - 618-536-2329
Wham Building, Room 108

The Economics major consists of 32 semester hours. Of these, 14 hours are required courses. With 18 hours remaining, a student can specialize in one of the following areas: Comparative Systems, Economic Development, Economic History, Economic Theory, Econometrics, Human Resources, International Economics, Money and Banking, Political Economy, or Public Finance.

First Year		Fall	Spring
GSA	Science (select)[2]	3	3
GSB 112	Comparative Economic Systems	3	-
GSB 211	Contemporary Economics	-	3
GSC	Humanties (select)[2]	3	3
GSD 101	English Composition	3	-
GSD 113	Introduction to Mathematics	3	-
*GSD 110	Economic and Business Statistics	-	2
GSD 117	Expository Writing	-	2
GSE 201	Healthful Living	-	2
Ed 201	Teacher's Role in Public School Education	1	-
		16	15

Second Year		Fall	Spring
GSA	Science (select)[2]	-	3
GSB 212, 300 or 301	American Government or U.S. History	3	-
GSB 202	Introduction to Psychology	-	3
GSC	English Elective in Humanities	3	-
GSD 153	Public Speaking	2	-
GSE	Human Health and Well Being	1	1
*Econ 214 & 215	Macro and Micro Economics	3	3
Electives		3	4
		15	14

*Part of Economic major requirement. Economics 214 also satisfies part of GSB requirement.

[1]See also the program under College of Liberal Arts.

[2]To determine what courses may be taken to satisfy the general education requirements, please refer to the section, General Studies for the Transfer Student.

Economics As A Major

The following specific General Studies courses are required for teacher certification. (These courses may be completed during the freshman and sophomore years): GSB 202, Introduction to Psychology; GSB 212, Introduction to American Government and Politics OR GSB 300 or 301, History of the United States; GSD 101, English Composition; GSD 117, 118, 119, Expository, Technical, or Creative Writing; GSD 153, Public Communication; GSE 100-114 (2 hours), Physical Education Activities; GSE 201, Healthful Living; One additional English course (GSC, GSD, or departmental).

ECONOMICS
College of Liberal Arts
(Bachelor of Arts)

Dr. Terry Foran - Chairperson
Telephone - 618-536-7746
Faner Building 4121

The Economics major consists of 31 semester hours. Of these, 16 hours are required courses. With 15 hours remaining, a student can choose courses in the following areas: Comparative Systems, Economic Development, Economic History, Economic Theory, Econometrics, Human Resources, International Economics, Money and Banking, Political Economy, Public Finance. The flexibility permitted by the electives available makes possible a program tailored to meet the needs of individual career preparation plans.

First Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB	Social Science (select)[1]	3	-
GSC	Humanities (select)[1]	-	3
GSD 101 & 117, 118, or 119	English Composition and Writing (select)[1]	3	2
GSD	Speech (select)[1]	-	2 (3)
MATH 116	Finite Mathematics and Algebra[2]	5	-
GSE	Human Health and Well Being (select)[1]	2	-
Math 117	Finite Mathematics and Calculus	-	5
		16	15-16

Second Year		Fall	Spring
GSA	Science (select)[1]	3	-
GSB	Social Science (select)	-	3
GSC	Humanities (select)[1]	-	3
GSC or FL	Humanities (select)[1] or Foreign Language[3]	3 (4)	3 (4)
GSE	Human Health and Well Being (select)[1]	2	-
*Econ 214, 215	Introduction to Macro and Micro Economics[4]	3	3
Elective[5]		3	3
		14-15	15-16

[1]To determine what courses may be taken to satisfy the general education requirements, please refer to the section, General Studies for the Transfer Student.

[2]One of these courses is required by the major and may also be used to fill the General Studies mathematics requirements; the other may be used to partially fulfill the Liberal Arts requirement for students beginning college anywhere Fall 1978 or later.

[3]Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GSC credit and four hours may be used to complete the thirty hours which are required from GSA, GSB, or GSC. If no foreign language is required, then the student may choose the GSC option instead.

[4]Part of Economics major requirement. Economics 214 also satisfies part of GSB requirements.

[5]Elective hours should be used in the following ways: 1) students may explore areas of interest or fulfill the requirements of the College of Liberal Arts (see College of Liberal Arts section); 2) arrange a program tailored to meet specific career objectives (students planning graduate study in economics are encouraged to take as much mathematics as possible).

Economics As A Major

Preparation for graduate study in economics, business, or in law school has long been a motivation for majoring in economics. In addition, specialists in economics are in increasing demand for both government and business employment.

Representative First Job Titles: Market Research Analyst, Econometrician, Economic Analyst, Economic Forecaster, Finance Administrator, Budget Analyst, Gov't Economic Enterprises Studies Officer, International Banking Officer, International Trade Economist, Investment Analyst, Loan Administrator, Industrial Economist, Manufactorer's Representative, Production Supervision, Price Economist, Transportation Economist, Labor Economist, Business Planner, Economic Geographist, Legislative Aide, Population Economic Analyst, Right-of-Way Agent, Tax Economist, Urban Economist.

ELECTRONIC DATA PROCESSING

School of Technical Careers
(Associate in Applied Science)

Byron Johnson
Program Coordinator
Telephone - 618-536-6682 ext. 268
Faner Building, A-2040

The growth of electronic data processing both in the expansion of installations and in the complexity of hardware and software has increased the need for competent computer programmers and systems analysts. Accurate and effective information processing is essential in any organization or institution.

The curriculum in electronic data processing prepares students for employment as business computer programmers and systems analysts. Skills which the graduate obtains include competency in programming languages (such as COBOL, Assembler, and RPG) and associated areas such as accounting and systems design and development.

An outstanding feature of the program at the School of Technical Careers is the availability of an IBM 370 computer system for batch and interactive use. The hardware and software configuration is representative of large computer installations in industry. The data center is accessible for approximately 100 hours per week.

An advisory committee of professional people and educators helps to keep the program responsive to needs in the field.

First Year		Fall	Spring
GSD 101	English Composition	3	-
Acct 110, 120	Applied Accounting	3	3
STC 102 or GSD 118	Technical Writing	-	2
EDP 101	Introduction to Data Processing	3	-
EDP 102	Introduction to Programming	3	-
EDP 206	RPG Programming	-	3
EDP 235	Business Statistics	-	3
EDP 103	Cobol Programming I	-	3
ADSC 170	Intro. to Business Administration	3	-
GSD 153	Public Speaking	-	3
		15	17

Second Year		Fall	Spring
GSB 202	Introduction to Psychology	3	-
EDP 203	Job Control Language and Utilities	3	-
EDP 204	COBOL Programming II	3	-
EDP 205	Systems Design and Development	-	3
EDP 104	Data Processing Applications	3	-
EDP 207	DP Project	-	6
EDP 240	Database Processing	3	-
EDP 201	Assembler Language Programming	-	4
EDP 241	Data Communications	-	3
		15	16

Electronic Data Processing As A Major

A minimum of 60 hours of credit must be completed for graduation.

Students may begin the program in the Spring semester, but five semester may be required for completion.

Representative First Job Titles: Computer Programmer, Systems Analyst.

ELECTRONICS TECHNOLOGY
School of Technical Careers
(Associate in Applied Science)

Paul A. Harre
Program Coordinator
Telephone - 618-536-6682
STC Building, Room 203

The Electronics Technology program provides instruction for the education of semiprofessional electronics technicians who are capable of taking places in industry in both indirect and direct support of the electronics engineer, and to provide training both practical and theoretical experiences in all phases of electrical power transmission.

Students will gain a thorough understanding of AC-DC and active element circuits so that they can design, construct, test and analyze new types of circuitry. They will learn digital circuits, as well as industrial systems in a theory-laboratory situation where they will develop the ability to solve problems and report test results in data sheets, graphs and technical papers. They will use diagnostic analyses to troubleshoot and repair electronics equipment.

First Year		Fall	Spring
GSD 101	English Composition	-	3
GSD 153	Public Speaking	-	3
STC 105a,b	Technical Mathematics	4	-
ELT 101	DC-AC Circuit Analysis Theory	5	-
ELT 111	DC-AC Circuit Analysis Lab	6	-
ELT 121	Electronic Devices	3	-
ELT 102	Electronics Circuits Theory	-	5
ELT 112	Electronics Circuits Laboratory	-	6
		18	17

Second Year		Fall	Spring
STC 102 or GSD 118	Technical Writing	-	2
STC 107a,b	Applied Physics	4	-
ELT 201	Telemetry and Industrial Circuits Theory	5	-
ELT 211	Telemetry and Industrial Circuits Lab	6	-
ELT 221	Electronic Systems Analysis	3	-
ELT 202	Digital Electronics Theory	-	5
ELT 212	Digital Electronics Laboratory	-	6
EDP 107 or EDP 217 or CS 202 or CS 212 or ELT 223 or	Electronic Data Processing Concepts or Computing for Business Administration or Intro to Computer Programming or Intro to Business Computing or FCC Test Preparation	-	3
ELT 122	Communications Fundamentals	-	3
		18	19

Electronics Technology As A Major

Graduates are employed by major corporations such as: General Electric, Emerson Electric, Bell Research Laboratories, I.B.M., General Tire and Rubber Company, Digital Equipment Corporation, Texas Instruments, and General Telephone (Automatic Electric). About eighty percent of these graduates work in indirect support positions and the remaining twenty percent in direct support positions.

During the first year of the program, most instruction is directed toward basic principles of electricity and electronics. This is followed by digital circuits and industrial systems. These applications are based on transistor and integrated circuitry.

Workbooks and supplies required for laboratory courses cost approximately $150.

A minimum of 72 hours of credit must be completed for graduation.

Third year options include Bio-medical electronics and Optical electronics for which an associate's degree is required.

Representative First Job Titles: Electronics Technician, Bench Technician, Repair Analysis Technician, Bio-medical Technician, Instrument Engineer, Technical Sales Representative, Customer Technician, Quality Control Technician, Field Technician.

ELEMENTARY EDUCATION (K-9)
College of Education
(Bachelor of Science)

Dr. Billy Dixon, Chairperson
Telephone - 618-453-2239
Wham Building, Room 327

Coordinator of Teacher Education Services
Telephone - 618-536-2329
Wham Building, Room 108

Following are the requirements for the Bachelor of Science degree with a concentration in elementary education which meet the minimum requirements for a standard Elementary School Certificate.

In addition to general university and College of Education requirements, a student must meet all requirements pertaining to prerequisites to student teaching and should study the section in the Undergraduate Catalog which lists such requirements.

First Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB	Social Studies (select)[1]	3	3
GSC	Humanities, Fine Arts (select)[1]	3	3
GSD 101	English Composition	3	-
GSD 117	Expository Writing	-	2
GSD 152	Interpersonal Communication	2	-
GSE	Human Health and Well Being	2	-
GSE 201	Healthful Living	-	2
Language Arts	(select)[2]	-	3
Ed 201	Teacher's Role in Public School Education	-	1
		16	17

Second Year		Fall	Spring
GSA	Science (select)[1]	3	2
GSB 202	Introduction to Psychology	3	-
GSB 300 or 301	History of U.S.	-	3
GSC	Literature (select)[2] (or English required)	3	-
Math 114	Algebraic and Arithmetic Systems	3	-
GSE	Human Health and Well Being (select)[1,2]	1	-
Math 314	Math for Elementary Teachers	-	2
Mus 101	Music Fundamentals (or GSC) (select)	-	2
Language Arts	(select)[2]	-	3
GSB 212	Introduction to American Government and Politics	3	
General Elective	(select)[2]	-	3
		16	15

[1]See section on General Studies for the Transfer Student.

[2]Refer to University Catalog for detailed explanation of additional general education and departmental requirements.

Elementary Education (K-9) As A Major

Students who plan to teach children from grades K-9 and specifically grades 4-6 should major in Elementary Education.

All students should refer to the section in the handbook specifying the requirements for entrance into the Formal Teacher Education Program.

ENGINEERING
(Electrical Sciences & Systems Engineering)
(Engineering Mechanics & Materials)
(Mining Engineering)
(Thermal & Environmental Engineering)
College of Engineering and Technology
(Bachelor of Science)

Dr. James Smith (ESSE), Phone 618-536-2364
Dr. Philip Davis (EM&M), Phone 618-536-2368
Dr. J. W. Chen (T&EE), Phone 618-536-2396
Dr. Kenneth Tempelmeyer (MNGE), Phone 618-536-6637

Engineering is the profession in which a knowledge of the mathematical and natural sciences gained by study, experience, and practice is applied with judgment to develop ways to utilize, economically, the materials and forces of nature for the benefit of mankind.

The four-year undergraduate program leading to the Bachelor of Science degree in engineering is a modern, flexible curriculum with four special options. The options in Electrical Sciences and Systems Engineering, Engineering Mechanics and Materials, and Thermal and Environmental Engineering are fully accredited by the Accreditation Board for Engineering and Technology (ABET, formerly ECPD). Accreditation for the new Mining Engineering option (est. Fall 1979) will be sought promptly.

First Year		Fall	Spring
*Engr. 100	Introduction to Engineering	3	-
GSB	Social Sciences (select)[1,2]	3	-
GSC	Humanities (select)[1,2]	3	3
*GSD 101 & 118	English Comp. & Technical Report Writing[1,2]	3	2
GSE	Human Health and Well Being (select)[1,2]	1	1
*Chem. 224, 225	Intro. to Chemical Principles and Lab[4]	-	7
*Math 150, 250	Calculus I & II	4	4
		17	17

Second Year		Fall	Spring
*Engr. 222	Computational Methods for Engineers	2	-
*Engr. 260a,b	Mechanics of Rigid Bodies (Statics and Dynamics)[5]	2	3
*GSA	Introductory Biology, Physiology, or Geology[2]	3	-
GSB	Social Studies (select)[1,2]	-	3
GSC	Humanities (select)[1,2]	-	3
*GSD	Speech	2 (3)	-
*Math 251, 305	Calculus III and Differential Equations I	3	3
*Phys. 205, 255	University Physics and Lab[4]	4	4
		16 (17)	16

*Required courses for a major in Engineering.

[1]Refer to section, General Studies for the Transfer Student, for general education requirements.
[2]Major requirements due to accreditation standards must include 16 hours of Humanities and Social Studies; 7 hours of oral and written communications and 18 hours of basic science.
[3]Math 150 substitutes for GSD Math.
[4]Chem 224 and Physics 205 and 255 are considered suitable substitutes for GSA credit.
[5]Engr 260b is optional for ESSE students.

Engineering As A Major

Foreign language is not required.

In recent years, engineers have been asked to assume responsibility for solving the complex problems of society, recognizing not only the technical aspects, but also the sociological implications of their decisions. The curriculum is designed to provide society with graduates who can cope with a variety of engineering activities such as design, development, testing, consulting, and applied research. These activities may be directed toward the solution of contemporary problems varying from design of devices to problems of an inter-disciplinary or complex-systems nature.

Transfer students from community colleges or other institutions should have strong backgrounds in the physical sciences, social sciences, and humanities. Students are encouraged to complete specific freshman and sophomore course requirements which include 3 hours of English Composition, 2 hours of Technical Writing; 2 hours of Speech; 8 hours of University Physics; 7 hours of Chemistry; 11-14 hours of Math, including Calculus; 2 hours of Analytical Mechanics (Statics); and 3 hours of Graphics or Introduction to Engineering. Calculus is a prerequisite for most junior-level courses.

The engineering program is designed to provide a basic foundation for the professional engineer. Students with Bachelor of Science degrees in Engineering will have an opportunity to specialize further at the graduate level.

Representative First Job Titles: Mechanical Engineer, Electrical Engineer, Civil Engineer, Structural Engineer, Plant Engineer, Product Development and Design Engineer, Product Application & Test Engineer, Sales, Operations Research Analyst, Hydrologist, Patent Engineer, Quality Assurance Specialist, Communications Engineer, Computer Engineer, Environmental Protection Engineer.

ENGINEERING BIOPHYSICS

College of Science[1]
(Bachelor of Science)

Dr. Harold Kaplan, Director
Telephone - 618-536-2143
Lindegren Hall, Room 111

This program is currently under review. The Engineering Biophysics program is a challenging, innovative program that leads to the Master of Science degree in engineering biophysics in only five years.

The first four years of study emphasize selected areas in the behavioral, engineering, life, mathematical, and physical sciences. At the end of this intensive four-year program the student will receive the Bachelor of Science degree.

The fifth year of study emphasizes advanced aspects in the behavioral and life sciences and provides optimum flexibility in electives as well as practical biomedical experience. A three-month internship at selected hospitals or laboratories of industry and government is a requirement for completing the graduate program and receiving the Master of Science degree.

First Year		Fall	Spring
*FL	Foreign Language[2]	4	4
GSD 101	English Composition	3	-
GSD 117, 118, or 119	Technical Report or Creative Writing	-	2
GSD 152 or 153	Speech	-	2 (3)
GSE 100 level	Activities (Physical Education)	1	1
*Math 111 or	College Algebra and Trigonometry[2]	5	-
*Math 110a,b	College Algebra and Trigonometry[2]	(3)	(2)
Math 150	Calculus I (if Math 111 is taken)	-	4
*Phys 204a,b and 254a,b or	College Physics--Honors and Honors Lab[2] or	4	4
*Phys 203a,b and 253a,b	College Physics and Lab[2]	(4)	(4)
EB 492	Colloquy in Engineering Biophysics	-	1
		17	18

Second Year		Fall	Spring
*Biol 305 or	Genetics - Classical and Molecular[2]	3	-
*Zool 118	Introductory Zoology	(3)	-
Math 250	Calculus II	4	-
Phys 205c	University Physics	3	-
*Chem 222a,b or	Introduction to Chemical Principles	4	4
*Chem 224, 225	Introduction to Chemical Principles and Lab	(7)	-
Botany 335 or	Methods in Genetics[2] or	-	2
*Botany 200,201	General Botany and Lab[2]	-	(4)
EEM (op. 2)	Electricity and Electromagnetism	-	4
EB 492	Colloquy in Engineering Biophysics	-	1
GSB 202	Introduction to Psychology	-	3
GSB 104	Man and His World - Anthropology	-	3
Elective	(if Chem 222a,b is taken)	3	-
		17	17

*Approved substitutes for General Studies

[1]Students may pursue the Engineering Biophysics program through other colleges within SIUC through arrangements with the Director of Engineering Biophysics.

[2]Students in the College of Science must take one year of foreign language, one year of math, 6 semester hours of physical sciences, and 6 semester hours of biological sciences.

Engineering Biophysics As A Major

With this degree students are uniquely qualified to become a professional applied-scientist who can effectively bridge the communication gap between the physical sciences and the behavioral, life,and social sciences. Or you may choose to go to medical or dental school because this program offers flexibility, all the appropriate course requirements, and considerable background strength. Students may also move into a doctoral program at an institution where advanced degrees in biophysics or bioengineering science are offered. The student of engineering biophysics at SIUC does not need to select his or her field of specialization until the junior year.

Representative First Job Titles: Biomedical Appliances Operator, Manufacturer's Representative, Researcher, Biomedical Engineer, Clinical Engineer, Medical Biophysicist, Medical Engineer, Sales Representative, Biophysicist, Physical Systms Designer, Environmental Scientist, Instrumentation Specialist, Product Manager, Operations Research Analyst, Synthetic Drugs Technician, Synthetic Products Technician, Instrument Manufacturers Staff, Aerospace Medicine Technologist.

ENGINEERING TECHNOLOGY
(Civil)
(Electrical)
(Mechanical)
College of Engineering and Technology
(Bachelor of Science)

Dr. Leon Dunning, Chairperson
Telephone - 618-536-3396
Technology Bldg, Room D-109

Engineering Technology is that part of the technological field which requires the application of scientific and engineering knowledge and methods combined with technical skills in support of engineering activities; it lies in the occupational spectrum between the craftsman and the engineer at the end of the spectrum closest to the engineer.

All curricula in Engineering Technology are accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (formerly ECPD). These include the Civil Engineering Technology, Electrical Engineering Technology, and Mechanical Engineering Technology curricula.

First Year		Fall	Spring
Chem 140a	Chemistry	-	4
GSB	Social Science (select)	3	3
GSD 101	English Composition	3	-
GSD 118	Technical Report Writing	-	2
GSE	Human Health and Well Being (select)	2	-
ET 103, 104	Engineering Drawing I, II	3	3
Math 111	College Algebra and Trigonometry[2]	5	-
Math 150	Calculus I	-	4
		16	16

Second Year		Fall	Spring
GSA	Science (select)	-	3
GSC	Humanities (select)	-	3
GSD 153	Public Communication	2	-
ET 245a	Electrical Systems for Industry	-	3
ET 260a,b	Principles of Mechanics, Statics & Dynamics	4	3
Math 250	Calculus II	4	-
Phys. 203a,b & 253a,b	College Physics and Lab[3]	4	4
Engr. 222	Computational Methods	2	-
		16	16

[1]Student specializing in Civil Engineering Technology will substitute ET 202 for ET 104.

[2]Math 111 substitutes for GSD Math.

[3]Physics 203 and 253 may be counted as GSA credit.

Third and Fourth Year

The last two years of a student's program concentrate on specialized objectives. The student will complete an additional 54 hours (including technical and other electives) in his or her major specialization plus six more hours of general studies for a total of 124 semester hours.

Engineering Technology As A Major

No minor is required. Foreign language is not required.

The amount of transfer credit (including occupational-technical credit) which can be applied to this program depends upon the nature of the credit to be transferred and the specific area requirements. The technology curricula are flexible enough to provide the means whereby graduates of two-year occupational programs can obtain a bachelor of science degree in a minimum length of time.

For the bachelor's degree the recommended guidelines in a specific subject matter area provide for a minimum of 23 semester hours of mathematics and basic science, 23 semester hours of communications, humanities, and social studies, and 45 semester hours of technical science and technical specialty courses.

Employment opportunities for graduates with B.S. degrees in Engineering Technology are excellent. Graduates are employed in the communications industries, electronic and electrical industries; by transportation industries and consulting firms; by federal, state, and local agencies; in the power and energy industries, in machinery manufacturing companies, and in many other areas.

Representative First Job Titles: Hardware Design & Development, Product Analysis & Development, System Operation, Process Management, Technical Sales & Service, Director of Engineering Technicians.

ENGLISH[1]

College of Education
(Bachelor of Science)

Coordinator of Teacher Education Services
Telephone - 618-536-2329
Wham Building, Room 108

The English Education major is designed to give the student a thorough background in composition, language, and literature. The various forms of English, American and world literature, contemporary and historic, are studied. The undergraduate major is preparatory for teaching at the secondary level, graduate study, or positions requiring effective communication of ideas.

First Year		Fall	Spring
GSA	Science (select)[2]	3	-
GSB 212, 300 or 301	American Government or U.S. History	3 (4)	-
GSB 202	Introduction to Psychology	-	3
GSC	Humanities (select)[2]	3	3
GSD 101	English Composition	3	-
GSD 117	Expository Writing	-	2
GSD 107	Intermediate Algebra	-	4
GSE	Human Health and Well Being	2	-
Ed 201	Teacher's Role in Public School Education	-	1
Electives[3]		2	3
		16 (17)	16

Second Year		Fall	Spring
GSA	Science (select)[2]	3	3
GSB	Social Studies (select)[2]	-	3
GSC	Humanities (select)[2]	-	3
GSD 153	Public Speaking	2	-
GSE 201	Healthful Living	2	-
*Eng 209	Introduction to Forms of Literature	3	-
Electives[3]		5	6
		15	15

*Approved substitute for General Studies.

[1]See also the program under the College of Liberal Arts.

[2]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

[3]Elective hours should be used in the following ways: (1) students may explore areas of interest; (2) they may select a minor.

English As A Major

The following specific General Studies courses are required for teacher certification (these courses may be completed during the freshman and sophomore years): GSB 202, Introduction to Psychology; GSB 212, Introduction to American Government and Politics, or GSB 300 or 301, History of the United States; GSD 101, English Composition; GSD 117, 118 or 119, Expository, Technical or Creative Writing; GSD 153, Public Communication; GSE 100-114 (2 hours), Physical Education Activities; GSE 201, Healthful Living; and one additional English course (GSC, GSD or departmental).

ENGLISH
(Teacher Education)*
College of Liberal Arts
(Bachelor of Arts)

Dr. William E. Simeone
Chairperson
Telephone - 618-453-5321
Faner 2370

The major in English may be pursued through the College of Liberal Arts or the College of Education if you are considering teaching English in secondary schools as a profession. The program is designed to give the student a thorough background in composition, language, and literature. The various forms of English, American and continental literature, contemporary and historic, are studied. The undergraduate major is preparatory for teaching, graduate study, or positions requiring effective communication of ideas.

First Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB	Social Science (select)[1]	3	3
GSC	Humanities (select)[1]	3	-
GSD 101 & 117, 118 or 119	English Composition and Writing (select)	3	2
GSD	Speech (select)[1]	-	2 (3)
GSD	Math (select)[1]	-	4
GSE	Human Health and Well Being (select)[1]	-	2
GSE 201	Healthful Living[2]	2	-
		14	16 (17)

Second Year		Fall	Spring
GSB 212, 300 or 301	Intro. to Am. Gov't or U.S. History	3 (4)	-
GSA	Science (select)[1]	3	-
GSC or FL	Humanities (select)[1] or Foreign Language[3]	3(4)	3(4)
ENG	English Literature[4]	-	3
ENG	American Literature[4]	3	-
Math or CS	Mathematics or Computer Science[5]	-	3
Elective[6]		3	4
		15-17	13-14

*See also the program under the College of Education.

[1]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

[2]Required for teacher certification.

[3]Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, for of these hours may be used for GSC credit and four hours may be used to complete the thirty hours which are required from GSA, GSB, or GSC. If no foreign language is required, then the student may choose the GSC option instead.

[4]Required by the major

[5]One of these courses may be used to partially fulfill the Liberal Arts requirement for students beginning college anywhere Fall 1978 or later.

[6]Elective hours should be used to explore areas of interest and to enhance career opportunities; or courses may be selected to satisfy Liberal Arts requirements (see College of Liberal Arts section).

English As A Major

Students who wish to declare English as a concentration should consult the department's director of undergraduate programs as soon as they know they will major in English. If possible, transfer students should contact a departmental advisor before their first registration at SIUC.

Students interested in this program should make themselves aware of the requirements for entering the Teacher Education Program, explained elsewhere in this text. The Department of English requires a 2.50 G.P.A. in the major and successful ("C" or better) completion of English 300, Introduction to Language Analysis, for recommendation to Unconditional Status in the Teacher Education Program.

Any of the English options may be modified by entry into the departmental honors program.

ENGLISH
(General)
(Pre-Graduate Study)
(Preprofessional)
College of Liberal Arts
(Bachelor of Arts)

Dr. William E. Simeone - Chairperson
Telephone - 618-453-5321
Faner 2370

The general backgroundin English is designed for the student who desires a broadly based general education leading to a Bachelor of Arts degree with a concentration in English, American and world literatures, with study in the various forms of literature, contemporary and historic. This specialization is preparatory for graduate study and positions requiring effective communication of ideas, such as in publishing.

If you have an excellent undergraduate record, a taste for literary analysis and criticism, and a desire to each young adults rather than adolescents, you might want to consider college teaching as a career. This specialization, which allows a great deal of flexibility in choosing upper-division courses, is specifically designed for the student planning to attend graduate school. The program is designed to give the student a thorough background in composition, language, and literature, both contemporary and historic.

The preprofessional specialization in English is designed for the student who has interest in refining his or her composition and language abilities in order to prepare for work in such fields as law, business, government, publishing, etc. The program may be particularly attractive to the pre-law student in its emphasis on language and communication. Courses in literature are included for the refinement of the student's language awareness, especially analysis.

First Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB	Social Science (select)[1]	3	3
GSC	Humanities (select)[1]	3	-
GSD 101 & 117, 118 or 110	English Composition and Writing (select)[1]	3	2
GSD	Speech (select)[1]	-	2(3)
GSD	Math (select)[1]	-	4
GSE	Human Health and Well Being (select)[1]	2	2
		14	16-17

Second Year		Fall	Spring
GSA	Science (select)[1]	3	-
GSB	Social Science (select)[1]	3	-
GSC or FL	Humanities (select)[1] or Foreign Language[2]	3 (4)	3 (4)
ENG	English Literature[3]	-	3
ENG	American Literature[3]	3	-
Math or CS	Mathematics or Computer Science[4]	-	3
Elective[5]		3	4
		15-16	13-14

[1]See General Studies for the Transfer Student.

[2]Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GSC credit and four hours may be used to complete the thirty hours which are required from GSA, GSB, or GSC. If no foreign language is required, then the student may choose the GSC option instead.

[3]Required by the major.

[4]One of these courses may be used to partially fulfill the Liberal Arts requirement for students beginning college anywhere Fall 1978 or later.

[5]Elective hours should be used to explore areas of interest and to enhance career opportunities; or courses may be selected to satisfy Liberal Arts requirements (see College of Liberal Arts section).

English As A Major

A major goal of general education, pre-graduate study and preprofessional specializations is to educate students to write clearly and effectively, to read precisely with insight and understanding and to know the history, the artistry, and the humane values of our linguistic and literary heritage. Students who wish to declare English as a concentration should consult the department's director of undergraduate programs as soon as they know they will major in English. If possible, transfer students should contact a departmental advisor before their first registration at SIUC. Any of the English options may be modified by entry into the departmental honors program.

Representative First Job Titles: Airline Stewardess, Customer Services Personnel, Public Relations Officer, Publicatons Personnel, Public Relations Officer, Publications Personnel, Executive Secretary, Announcer, Continuity Writer, Copywriter, Correspondent, Critical Writer, Editorial Writer, Feature Writer, Program Assistant, Reporter, Assistant Librarian, Rewriter, Technical Writer, Educational Television Staff, Manufacturer's Representative, Sales Agent, Recreation Specialist, Interpreter.

ENGLISH
(Writing)
(Creative Writing)
College of Liberal Arts
(Bachelor of Arts)

Dr. William E. Simeone
Telephone - 618-453-5321
Faner 2370

Students who wish to pursue and refine an interest in literature and language through their creative abilities may choose this specialization. The equivalent of seven courses, beyond the core curriculum required of all English majors, are offered on-campus, culminating in a senior writing project--a directed written project such as a collection of short stories or poems, a novel or a play. All instructors of these courses are people who have published their own creative writing and the major thrust of the work will be toward publication. An alternative to the senior project may be an internship in a publishing firm if appropriate arrangements can be made.

First Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB	Social Science (select)[1]	3	3
GSC	Humanities (select)[1]	3	-
GSD 101, 119	English Composition and Creative Writing	3	2
GSD	Speech (select)	-	2 (3)
GSD	Math (select)[1]	-	4
GSE	Human Health and Well Being (select)[1]	2	2
		14	16 (17)

Second Year		Fall	Spring
GSA	Science (select)[1]	3	-
GSB	Social Science (select)[1]	3	-
GSC or FL	Humanities (select)[1] or Foreign Language[3]	3 (4)	3 (4)
Eng 281,282,283	Beginning Fiction, Poetry, Drama[2]	3	3
Math or CS	Mathematics or Computer Science[4]	-	3
Elective[5]		3	6
		15 (16)	15 (16)

[1]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

[2]Required by the major. The student should select two courses from 281, 282, or 283

[3]Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GSC credit and four hours may be used to complete the thirty hours which are required from GSA, GSB, or GSC. If no foreign language is required, then the student may choose the GSC option instead.

[4]One of these courses may be used to partially fulfill the Liberal Arts requirement for students beginning college anywhere Fall 1978 or later.

[5]Elective hours should be used to explore areas of interest and to enhance career opportunities; or courses may be selected to satisfy Liberal Arts requirements (see College of Liberal Arts section).

English As A Major

Students interested in general writing and creative writing are strongly urged to confer with the director of undergraduate programs in English as soon as possible. The unique design of this specialization requires a great deal of advisement and consultation in order to insure that students go through the proper sequence of courses. If possible, transfer students should contact a departmental advisor before their first registration at SIUC.

Any of the English options may be modified by entry into the departmental honors program.

Representative First Job Titles: Airline Stewardess, Customer Services Personnel, Public Relations Officer, Publications Personnel, Executive Secretary, Announcer, Continuity Writer, Copywriter, Correspondent, Critical Writer, Editorial Writer, Feature Writer, Program Assistant, Reportr, Assistant Librarian, Rewriter, Technical Writer, Educational Television Staff, Manufacturer's Representative, Sales Agent, Recreation Specialist, Interpreter.

FAMILY ECONOMICS AND MANAGEMENT

(Consumer Services in Business Option)
Division of Human Development
College of Human Resources
(Bachelor of Science)

Dr. Michael Zunich
Divisional Executive Officer
Telephone - 618-536-5541
Quigley Hall, 4th Floor

This specialization prepares students for professional opportunities in consumer affairs in industry and government. Special emphasis is placed on the role of the consumer in the marketplace and the consumer's relationship to private enterprise and government agencies. A key focus of the program is the application of concepts and the critical analysis of problems and issues affecting the consumer's interests and choices.

First Year		Fall	Spring
GSA	Science (select)	-	3
*GSB 202	Introduction to Psychology	-	3
*GSB 211	Contemporary Economics	-	3
GSC	Humanities (select)	3	-
GSD 101 and 117, 118 or 119	English Composition and Writing (select)	3	2
GSD	Speech	2 (3)	-
GSD	Mathematics	4	-
GSE	Human Health and Well Being (select)	1	1
Accounting	(suggested elective)	-	3
Elective		3	-
		16 (17)	15

Second Year		Fall	Spring
GSA	Science (select)	3	3
*GSB 203	Sociological Perspective	3	-
GSC	Humanities (select)	3	3
GSE	Human Health and Well Being (select)	1	1
Electives		5	8
		15	15

Third and Fourth Years

The last two years of a student's program concentrate on specialized objectives and departmental requirements. Emphasis is toward completion of advanced Family Economics and Management courses which include FE&M 240, 330, 340, 341, 350, 370, 445, 494, 499.

*Required General Studies. See section on General Studies for the transfer student.

Students develop competencies in resource management and ability to work with and understand consumer problems at all socio-economic levels with regard to housing and equipment and other consumer goods.

Graduates are prepared to work with a social service agency in helping families or to work for utility companies, government (FTC, FDA).

Representative First Job Titles: Consumer Market Analyst, Consumer Services Officer, Consumer Relations Officer, Consumer Research Analyst, Market Research Analyst, Gov't Regulatory Agency Worker, Patient Service Rept. (Hospital), Private Social Welfare Agency Worker, Public Social Welfare Agency Worker, Senior Citizens Agency Worker, Credit Counseling Agency Worker, Trade Association Officer, Credit & Financing Agency Worker, Activity Therapy Trainee, Household Equipment Specialist, Household Finance Specialist, Purchasing Officer, Manufacturer's Representative.

FAMILY ECONOMICS AND MANAGEMENT
(Family Service Consultant Option)
Division of Human Development
College of Human Resources
(Bachelor of Science)

Dr. Michael Zunich
Divisional Executive Officer
Telephone - 618-536-5541
Quigley Hall, 4th Floor

This specialization is designed to give students a knowledge and understanding of the family's management and allocation of resources. This option prepares students for employment in public and private welfare agencies, cooperative extensions and local government and other programs. The low-income family is of particular interest in this specialization. Elective courses should reflect the student's personal employment goals. The program is tailored to meet the theoretical as well as applied concepts in preparing students to serve individuals and families of various ages, physical abilities, and income levels.

First Year		Fall	Spring
GSA 209	Science (select)	3	-
GSB 202	Introduction to Psychology	-	3
*GSB 203	Sociological Perspective	-	3
GSC	Humanities (select)	3	-
GSD 101 and 117, or 118	English Composition & Expository or Technical Report Writing	3	2
GSD 153	Public Speaking	3	-
GSD	Mathematics	4	-
GSE	Human Health and Well Being	1	1
Electives		-	6
		17	15

Second Year		Fall	Spring
GSA	Science (select)	3	3
*GSB 211	Contemporary Economics	-	3
GSC	Humanities	3	3
GSE	Human Health and Well Being (select)	1	1
Electives		5	5
F&N 100	Fundamentals of Nutrition	3	-
		15	15

Third and Fourth Year

Studies during the third and fourth years emphasize departmental requirements and advanced courses in Family Economics and Management, which include FE&M 240, 320, 330, 340, 350, 351, 370, 430, 445, 494, 499. In addition, students will take courses in Child and Family, Clothing and Textiles, Food and Nutrition, and Social Welfare.

*Required General Studies. See section on General Studies for the transfer student.

No minor required. No foreign language required.

Program objective is to develop competencies in resource management and ability to work with and understand consumer problems at all socio-economic levels with regard to housing and equipment and other consumer goods.

Representative First Job Titles: Consumer Market Analyst, Consumer Services Officer, Consumer Relations Officer, Consumer Research Analyst, Market Research Analyst, Gov't Regulatory Agency Worker, Patient Service Rept. (Hospital), Private Social Welfare Agency Worker, Public Social Welfare Agency Worker, Senior Citizens Agency Worker, Credit Counseling Agency Worker, Trade Association Officer, Credit & Financing Agency Worker, Activity Therapy Trainee, Household Equipment Specialist, Household Activity Analyst, Household Finance Specialist, Purchasing Officer, Manufacturer's Representative.

FINANCE
(Financial Management Option)
(Financial Institutions Option)
College of Business and Administration
(Bachelor of Science)

Dr. Iqbal Mathur, Chairperson
Telephone - 618-453-2459
General Classrooms Bldg., Room 214

The financial implications of decisions in both business and government are daily becoming more complex. Within the firm, financial considerations permeate the central decisions of research, engineering, production and marketing. Within governmental activities, sophisticated financial techniques are becoming increasingly important. The financial executive thus takes a key role in the successful management of both business and governmental operations.

The finance curriculum offers two areas of specialization to meet the varied interest of the students: (1) financial management and (2) financial institutions. The financial management program provides the background for a career in the financial operations of business firms and public institutions. The financial institutions specialization is designed for those interested in the operations of financial intermediaries and financial markets.

First Year		Fall	Spring
GSA	Science (select)[1]	3	3
*GSB 202	Introduction to Psychology	-	3
GSC	Humanities (select)[1]	6	3
GSD 101 & 117, 118 or 119	English Composition & Writing (select)[1]	3	2
*Math 116-5 or 139-3	Finite Mathematics and Algebra	3 (5)	-
*Math 117 or 140	Finite Mathematics and Calculus or Short Course in Calculus	-	4 (5)
		15 (17)	15 (16)

Second Year		Fall	Spring
*Acct 221, 222	Financial, Managerial Accounting	3	3
*ADSC 208	Interpretation of Business Data	4	-
*CS 222 or EDP 217	Intro. to Computer Programming (PL1) or Computing for Business Admin. (FORTRAN)	-	3
*Econ 214, 215	Economics, Macro and Micro[2]	3	3
GSA	Science (select)[1]	3	-
*GSD 153 or 152	Public Speaking or Interpersonal Communication	3 (2)	-
GSE	Human Health and Well Being[1]	-	2
GS- ---	General Studies Electives	-	4
		16 (15)	15

*Required course for a major in Finance.

[1]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

[2]Econ 214 or 215 counts toward GSB credit.

Finance As A Major

Neither minor nor foreign language required.

Graduate degree available: MBA, Masters in Accountancy.

It is strongly recommended that the courses listed above be completed prior to the junior year. Many of these courses are prerequisites to later requirements.

The Department is recognized by the American Assembly of Collegiate Schools of Business (AACSB).

Representative First Job Titles: Internal Auditor, Finance Administrator, Financial Analyst, Trust Administrator, Wage-Salary Administrator, Systems Analyst, Inventory Controller, Credit Analyst, Investment Analyst, Operations Research Analyst, Budget Administrator, Consumer Researcher, Controller, Credit Manager, Finance Officer, Financial Management Intern, Bursar Assistant (College), Grant Coordinator (College), Assistant Fiscal Officer, Assistant to the Paymaster, Payroll and Assignment Supervisor, Assistant to the Director of Finance, Head Cashier, Financial Planning Agent, Loan Administrator.

FLIGHT TRAINING
(Courses)

Ronald D. Kelly, Director
Air Institute & Services
Southern Illinois Airport
Telephone - 618-529-2681
Office of Admissions & Records
Woody Hall
Telephone - 618-453-4381
or toll free in Illinois
(800)642-3531

Flight is by its very nature interdisciplinary. Today's professional pilots must not only pursue and maintain the highest level of flight proficiencies, they must also develop allied competencies which give them realistic career alternatives within the aviation industry. There is not a specific degree in flight offered by SIUC, but interdisciplinary opportunities are abundant.

The program of flight instruction at SIU is unique, in that it has the flexibility to accommodate any student, whatever his or her academic interest. For many it means taking flight courses as electives within traditional programs such as Business and Administration. For others it means combining flight courses with one of the University's Aviation Technology programs for an associate degree. Many students, particularly graduates from Technical Aviation programs in community colleges, enter the University through Project "Capstone". This unique program offers a variety of baccalaureate degrees. Three Capstone programs are particularly well suited for the technical aviation community college graduate. These are Industrial Technology, Occupational Education, and the individualized programs offered by the School of Technical Careers.

Students who are interested in flying professionally but who are unsure as to which academic program to pursue, may enter the University with an undecided major. This will allow them to immediately start their flight training while working with an advisor toward the selection of a degree program.

Flight Training at SIU is conducted by the SIU Air Institute located at the Southern Illinois Airport, approximately 3 miles from the main campus. Bus transportation to and from the Airport is provided by the University. The SIU Air Institute is an FAA 141 approved certificated Pilot School with examining authority, providing comprehensive flight training which includes the most basic rating (Private Pilot) to the most advanced rating (Airline Transport Pilot).

Substantial costs are incurred by students pursuing professional aviation. Realistically, students should plan on spending between $5,000 - $8,000 in order to obtain the flight qualifications needed for employment. These flight costs are in addition to tuition and fees, room and board, etc.

Students should be encouraged to contact the faculty at the SIU Air Institute or counselors located in the Office of Admissions for more specific information relative to degree options, flight costs and additional training alternatives such as Air Force ROTC and Army ROTC.

FOOD AND NUTRITION
(Dietetics)
Division of Human Development
College of Human Resources (Bachelor of Science)

Coordinator
Telephone - 618-536-5541
Quigley Hall, Room 207

These courses give a strong scientific education to those interested in becoming dietitians in hospitals, college dormitories, industrial plants, health clinics, laboratories, or public health and welfare organizations. They meet the requirements of the American Dietetics Association.

First Year		Fall	Spring
GSA 115	Biology	3	-
GSB 209	Principles of Physiology[1]	-	3
GSB 104	The Human Experience: Anthropology[2]	3	-
GSC	Humanities (select)[3]	3	3
GSD 101	English Composition	3	-
GSD 118	Technical Report Writing[1]	-	2
GSD 107	Intermediate Algebra[1]	-	4
GSD	Speech (select)[3]	2 (3)	-
GSE	Human Health and Well Being (select)[3]	1	-
F&N 100	Fundamentals of Nutrition	-	3
		15 (16)	15

Second Year		Fall	Spring
GSB 209	Introduction to Psychology[1]	3	-
GSB 211	Contemporary Economics[1]	-	3
GSC	Humanities (select)[3]	3	-
GSA/B/C	Select[3]	-	2
GSD 112	Basic Concepts of Statistics[1]	-	2
GSE	Human Health and Well Being (select)[3]	2	1
Chem 140a,b	Chemistry[4]	4	4
C&F 237	Child Development	3	-
F&N 256	Fundamentals of Food	-	3
		15	15

[1]Required General Studies courses.

[2]Or GSB 203-4- The Sociological Perspective.

[3]Refer to section on General Studies for the transfer student.

[4]Chemistry 140a counts as GSA credit.

Third and Fourth Year

The last two years of a student's program concentrates on nutrition, food service systems, diet therapy, and experimental foods.

Food And Nutrition As A Major

Very close faculty-student counseling; on-going research program.

Graduate degree available in Community Nutrition and Food and Nutrition Science.

The program maintains close contact with employers and assists students in becoming registered.

Representative First Job Titles: Food Technologist, Food and Drug Inspector, Food Buyer, Food Industry Technician, Food Products Salesman, Food Processing Technician, Food Service Supervisor, Quality Control Technician, Agricultural Commodities Inspector, Consumer Safety Inspector, Dietician, Research for Consulting Firm, Food & Beverage Control Officer, Hospital Dietician.

FOOD AND NUTRITION
(Food and Lodging Systems Management)
Division of Human Development
College of Human Resources
(Bachelor of Science)

Coordinator
Telephone - 618-536-5541
Quigley Hall, Room 207

These courses prepare students for positions as food systems managers for restaurants, hotels, school food service, public and private lodging facilities, airlines, industrial feeding, resorts, institutions, hospitals and clubs. They meet the requirements as set forth by industry, the Council of Hotel, Restaurant, and Institutional Education, and the National Restaurant Association. Through this program in the hospitality field, transfer students from community colleges also will be able to complete their baccalaureate degrees.

First Year		Fall	Spring
GSA 115	Biology[1]	3	-
GSB	Social Sciences (select)[2]	3	3
GSC	Humanities (select)[2]	-	3
GSD 101 & 117 118 or 119	English Composition and Writing (select)[2]	3	2
GSD	Mathematics (select)[2]	4	-
GSD	Speech (select)[2]	-	2 (3)
GSE	Human Health and Well Being (select)[2]	2	1
Chem 140	Chemistry[3]	-	4
		15	15 (16)

Second Year		Fall	Spring
*GSA 209	Principles of Physiology[1]	3	-
GSB	Social Sciences (select)[2]	3	-
GSB 202	Introduction to Psychology	-	3
GSC	Humanities (select)[2]	3	3
GSA/B/C	Select[2]	-	2
GSE	Human Health and Well Being (select)[2]	-	1
F&N 100	Fundamentals of Nutrition	3	-
F&N 156	Fundamentals of Foods	-	3
ACCT 221, 222	Principles of Accounting I & II	3	-
		15	15

[1]Required Areas A and B courses.

[2]Refer to section on General Studies for the transfer student.

[3]Chemistry 140a counts as GSA credit.

Third and Fourth Year

The last two years of a student's program concentrates on courses in food service systems, administrative sciences, and marketing.

Food And Nutrition As A Major

Very close faculty-student counseling; on-going research program.

The Department maintains close contact with employers and assists students in finding internships, traineeships, and permanent positions.

Representative First Job Titles: Food Technologist, Food and Drug Inspector, Food Buyer, Food Industry Technician, Food Products Salesman, Food Processing Technician, Food Service Supervisor, Quality Control Technician, Agricultural Commodities Inspector, Consumer Safety Inspector, Dietician, Research for Consulting Firm, Food & Beverage Control Officer, Hospital Dietitian.

FOOD AND NUTRITION
(Food and Nutrition Science)
Division of Human Development
College of Human Resources (Bachelor of Science)

Coordinator
Telephone - 618-536-5541
Quigley Hall, Room 207

These courses give a strong scientific education to those interested in preparing for graduate study in food, nutrition or related discipline; for research in university, industrial or governmental laboratories; or for educational and promotional work in industry or public health organizations.

First Year		Fall	Spring
GSA 115	Biology[1]	3	-
GSB 209	Principles of Physiology[1]	3	3
GSB	Social Sciences (select)[2]	3	3
GSC	Humanities (select)[2]	3	3
GSD 101 & 117, 118 or 119	English Composition and Writing (select)[2]	3	2
GSE	Human Health and Well Being (select)[2]	-	2
Math 110a	College Algebra [3]	3	-
F&N 100	Fundamentals of Nutrition	-	3
		15	16

Second Year		Fall	Spring
GSB 202	Introduction to Psychology	3	-
GSC	Humanities (select)	-	3
GSA/B/C	Select[2]	2	-
GSD	Speech (select)[2]	2 (3)	-
GSE	Human Health and Well Being (select)[2]	2	-
Chem 222a,b	Introduction to Chemical Principles[4]	4	4
F&N 156	Fundamentals of Foods	3	-
F&N 256	Science of Food	-	3
Psyc 211	Research Methods in Psychology	-	4
		15 (16)	15

[1]Required areas A and B courses.

[2]Refer to section on General Studies for the transfer student.

[3]Math 110a meets the University Math requirements.

[4]Chemistry 222a counts as GSA credit.

Third and Fourth Year

The last two years of a student's program concentrate on chemistry, nutrition, and microbiology.

Food And Nutrition As A Major

Very close faculty-student counseling; on-going research program.

Graduate degree available.

The Department maintains close contact with employers and assists students in finding internships, traineeships, and permanent positions.

Representative First Job Titles: Food Technologist, Food and Drug Inspector, Food Buyer, Food Industry Technician, Food Products Salesman, Food Processing Technician, Food Service Supervisor, Quality Control Technician, Agricultural Commodities Inspector, Consumer Safety Inspector, Dietician, Research for Consulting Firm, Food & Beverage Control Officer, Hospital Dietitian.

FOREIGN LANGUAGES (TEACHING)
(French, German, Latin,
Russian, Spanish)
College of Education
(Bachelor of Science)

Coord. of Teacher Ed. Services
Telephone - 618-536-2329
Wham Building, Room 108

Dr. Eugene Timpe, Chairperson,
Foreign Languages
Telephone - 618-536-5577
Faner 2166

Major concentrations leading to the Bachelor of Science degree are offered in French, German, Latin, Russian, and Spanish. Courses are also offered in Chinese, Classical Greek, Italian, Portuguese, Serbo-Croatian, and Vietnamese. (Serbo-Croatian and Vietnamese are offered in cooperation with the Department of Linguistics, etc.). Programs offered in foreign languages can be preparatory for graduate study, teaching, or other positions requiring the ability to speak, read, understand, and interpret foreign languages. The federal government provides opportunities for individuals with such skills.

Many graduates with foreign language skills can find interesting opportunities with private industry, foreign news bureaus, airlines, and travel agencies as well. In addition, university and research institute libraries, and social work agencies offer varied work situations for people with foreign language facility.

First Year		Fall	Spring
GSA	Science (select)[1]	3	-
GSB 300 or 301	History of U. S.	3	-
GSB 202	Introduction to Psychology	-	3
GSD 101	English Composition	3	-
GSD 107	Intermediate Algebra	-	4
GSD 117	Expository Writing	-	2
GSE	Human Health and Well Being (select)[1]	2	-
FL[3]	Elementary French, German, Spanish, or Russian	4	-
FL	Continue above	-	4
Ed 201	Teacher's Role in Public School Education	-	1
		15	14

Second Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB	Social Studies (select)[1]	-	3
GSC	English elective in Humanities (select)[1]	3	-
GSC	Humanities (select)[1]	2	3
GSD 153	Public Speaking	-	2
GSE 201	Healthful Living	2	-
FL	Intermediate French, German, Russian, or Spanish	4	4
Elective		2	-
		16	15

[1]Refer to section General Studies for the Transfer Student.

Courses required for certification include GSB 202; GSB 212 or GSB 300 or 301; GSD 101; GSD 117, 118, or 119; GSD 153; GSE 100-114 (2 hours); GSE 201; one additional English course from GSC, GSD, or department.

Language As A Major

Students interested in majoring in any of the offered languages should be aware of the requirements for entrance into the Teacher Education Program.

No minor is required. However, minors are available in Chinese, Greek, Latin, East Asian Civilizations, Italian, and Japanese.

Graduate degrees are available.

FORESTRY
(Forest Environmental Assessment)
School of Agriculture
(Bachelor of Science)

Dr. Howard A. Spalt, Chairperson
Telephone 618-453-3341
Agriculture Building 184

The forest environmental assessment option provides training in the assessment of the impact of forestry practices on the environment. Graduates of this program, after assessing alternative forest practices, are able to prescribe procedures for best preserving a healthy forest ecosystem.

This option features, during the summer following the junior year, a special field study course in which case studies are utilized to illustrate the preparation of environmental impact statements.

First Year		Fall	Spring
Bot 200 & 201[1]	General Botany with Lab	4	-
Chem 140a & b[1]	Inorganic/Organic	4	4
Zool 118	Introductory Zoology	-	4
GSC	Select[2]	3	3
GSD 101[3]	English Composition	3	-
Math 140[3]	Calculus	-	4
GSE	Human Health and Well Being (select)[2]	1	2
For 200	Introduction to Forestry	1	-
		16	17

Second Year		Fall	Spring
GSD 118	Technical Report Writing	-	2
Biol 307	Environmental Biology[1]	3	-
ABE 204	Ag Economics	3	-
GSB	Sociology or substitute	3	-
GSC	Elective	3	-
GSD 153[3]	Public Speaking	-	3
Math 283[3]	Introduction to Applied Statistics	-	3
For 201	Ecology of North American Forests	3	-
For 202	Tree Identification Lab	1	-
PLSS 240	Soil Science	-	4
GSB 212	Intro. to American Government and Politics	-	4
		16	16

Third and Fourth Year

Students concentrate on courses in forestry and associated areas to gain the competence required to analyze and assess the environmental impact of forest management systems. Field work in environmental impact assessments is included.

[1]Satisfies GSA requirements.

[2]To determine what courses may be taken to satisfy the general education requirements for this major, please refer to the section, General Studies for the Transfer Student.

[3]Satisfies GSD requirements.

[4]Satisfies GSB requirements.

Forestry As A Major

Available to the Department of Forestry for teaching and research are the following: the Crab-Orchard National Wildlife Refuge; the Shawnee National Forest; the Union State Tree Nursery and Forest; many state parks and conservation areas, and the Kaskaskia Experimental Forest, together comprising several hundred thousand acres of forest land, all in the vicinity of the University. Also accessible for wood utilization teaching and research is a modern wood products plant located at the Vocational-Technical Institute east of Carbondale. The Southern Illinois University Experimental Forest and Giant City State Park provide additional facilities for teaching and research, especially during the spring camp. In addition, 30 staff members of the U. S. Forest Service Carbondale Research Center are affiliated with the Department of Forestry and help to enrich the University's forestry program.

Representative First Job Titles: Agricultural Aid, Recreational Resource Planner, Forest Engineer, Silviculture Specialist, Forest Utilization Specialist, Forest Recreation Specialist, Range Manager, Watershed Manager, Wildlife Manager, Forest Products Technologist, Animal Ecologist, Plant Ecologist, Pollution Control Specialist, Forest Conservation Specialist, Public and Environmental Health Forester, Parks Supervisor, Grazing Lands Supervisor, Research Forester, Forest Extension Worker, Timber Manager, Park Ranger, Soil Conservationist, Forest Resources Manager.

FORESTRY
(Forest Resources Management Option)
School of Agriculture
(Bachelor of Science)

Dr. Howard A. Spalt, Chairperson
Telephone - 618-453-3341
Agriculture Building, Room 184

Foresters are essential people in this era of environmental awareness. The forester is responsible for protecting and preserving our country's proudest heritage nearly 750,000,000 acres of forestland. The forester must supply materials to the forest products industry, a 30 billion dollar giant with 1,500,000 employees.

The forester has an enormous task: to make the forest grow and see that forests are wisely used; to appreciate the beauty, physical and spiritual, of the outdoors; be competent in technical forestry skills, comprehend the functioning of the forest ecosystem, and yet be aware of the social influences and needs of the people. The forester is a decision maker of the top order.

The program in forest resources management includes instruction leading to careers in forest management and production, multiple use resource management, and the forest products industries. The specialization includes areas of study recommended by the Society of American Foresters. Emphasis is upon integrated resource management of natural and renewable resources, coordinating forest utilization methods and conservation practices, and preserving our wildlands heritage. A five-week session (Field Study) is required after the junior year to give the student practical field experience.

First Year		Fall	Spring
Bot 200 & 201[1]	General Botany with Lab	4	-
Chem 140a & b[1]	Chemistry	4	4
Zool 118[1]	Introductory Zoology	-	4
GSC	Humanities (Select)[2]	-	3
Math 140[3]	Calculus	-	4
GSD 101	English Composition	3	-
GSE 101A	Swimming	1	-
GSE	Human Health and Well Being (Select)[2]	1	-
For 200	Introduction to Forestry	1	-
		14	15

Second Year		Fall	Spring
Biol 307[1]	Environmental Biology	3	-
GSB	Sociology or substitute	3	-
GSB	Political Science or substitute	-	3
GSC	Humanities (Select)[2]	-	3
GSD 118	Technical Report Writing	2	-
GSD 153	Public Speaking	-	3
Math 283[3]	Introduction to Applied Statistics	3	-
For 201	Ecology of North American Forests	3	-
For 202	Tree Identification Lab	1	-
PLSS 240	Soil Science	-	4
ABE 204	Agricultural Economics	-	3
		15	16

Third and Fourth Years
Study is concentrated in a series of forestry and related areas which enable the student to develop professional competencies in the management of forest resources. Students gain experience with field applications of professional skills during a five week early summer session immediately following the junior year.

[1]Satisfies GSA requirements.

[2]To determine what courses may be taken to satisfy the general education requirements for this major, please refer to the section, General Studies for the Transfer Student.

[3]Satisfies GSD requirements.

[4]Satisfies GSB requirements.

Forestry As A Major
Available to the Department of Forestry for teaching and research are the following: the Crab-Orchard National Wildlife Refuge; the Shawnee National Forest; the Union State Tree Nursery and Forest; many state parks and conservation areas, and the Kaskaskia Experimental Forest, together comprising several hundred thousand acres of forest land, all in the vicinity of the University. Also accessible for wood utilization teaching and research is a modern wood products plant located at the Vocational-Technical Institute east of Carbondale. The Southern Illinois University Experimental Forest and Giant City State Park provide additional facilities for teaching and research, especially during the spring camp. In addition, 30 staff members of the U. S. Forest Service Carbondale Research Center are affiliated with the Department of Forestry and help to enrich the University's forestry program.

Representative First Job Titles: Agricultural Aid, Recreational Resource Planner, Forest Engineer, Silviculture Specialist, Forest Utilization Specialist, Forest Recreation Specialist, Range Manager, Watershed Manager, Wildlife Manager, Forest Products Technologist, Animal Ecologist, Plant Ecologist, Pollution Control Specialist, Forest Conservation Specialist, Public and Environmental Health Forester, Parks Supervisor, Grazing Lands Supervisor, Research Forester, Forest Extension Worker, Timber Manager, Park Ranger, Soil Conservationist, Forest Resources Manager.

FORESTRY
(Forest Science Specialization)
School of Agriculture
(Bachelor of Science)

Dr. Howard A. Spalt, Chairperson
Telephone - 618-453-3341
Agriculture Building, Room 184

The forest science option is intended for students who plan to enter a graduate program in forestry upon completion of the baccalaureate program. The student and his or her advisory committee, consisting of two Department of Forestry faculty members, plan an individualized program to meet the student's educational and professional goals. The program of study may be selected from any subject within the competence of the Forestry Department faculty.

Admission to the program is limited to students with a grade point average of 3.0 or above (on a 4.0 = A scale) and the student must maintain a 3.0 or above average to remain in the program.

First Year		Fall	Spring
Bot 200 & 201[1]	General Botany with Lab	4	-
Chem 140a & b[1]	Chemistry	4	4
Zool 118[1]	Introductory Zoology	-	4
GSC	Humanities (select)[2]	-	3
Math 140[3]	Calculus	-	4
GSD 101	English Composition	3	-
GSE	Human Health and Well Being (select)[2]	2	1
For 200	Introduction to Forestry	1	-
		14	16

Second Year		Fall	Spring
Biol 307[1]	Environmental Biology	3	-
GSB	Sociology or substitute	3	-
GSB	Political Science or substitute	-	3
GSC	Humanities (select)[2]	3	3
GSB	Social Science (select)[2]	-	3
GSD 117/118/119	Writing	2	-
GSE	Human Health and Well Being (select)[2]	-	1
For 201	Ecology of North American Forests	3	-
For 202	Tree Identification Lab	1	-
PLSS 240	Soil Science	-	4
		15	16

Third and Fourth Year

There are four additional forestry courses which are required during the third and fourth years to complete the professional forestry core. The remainder of the third and fourth years are elective, selected by the student and his or her committee to satisfy the student's educational and professional goals.

[1]Substitutes for GSA requirement.

[2]To determine what courses may be taken to satisfy general education requirements for this major refer to the section General Studies for the Transfer Student.

[3]Substitute for GSD requirement.

Forestry As A Major

Available to the Department of Forestry for teaching and research are the following: the Crab-Orchard National Wildlife Refuge; the Shawnee National Forest; the Union State Tree Nursery and Forest; many state parks and conservation areas, and the Kaskaskia Experimental Forest, together comprising several hundred thousand acres of forest land, all in the vicinity of the University. Also accessible for wood utilization teaching and research is a modern wood products plant located at the Vocational-Technical Institute east of Carbondale. The Southern Illinois University Experimental Forest and Giant City State Park provide additional facilities for teaching and research, especially during the spring camp. In addition, 30 staff members of the U. S. Forest Service Carbondale Research Center are affiliated with the Department of Forestry and help to enrich the University's forestry program.

Representative First Job Titles: Agricultural Aid, Recreational Resource Planner, Forest Engineer, Silviculture Specialist, Forest Utilization Specialist, Forest Recreation Specialist, Range Manager, Watershed Manager, Wildlife Manager, Forest Products Technologist, Animal Ecologist, Plant Ecologist, Pollution Control Specialist, Forest Conservation Specialist, Public and Environmental Health Forester, Parks Supervisor, Grazing Lands Supervisor, Research Forester, Forest Extension Worker, Timber Manager, Park Ranger, Soil Conservationist, Forest Resources Manager.

FORESTRY
(Outdoor Recreation Resource
Management Specialization Option)
School of Agriculture
(Bachelor of Science)

Dr. Howard A. Spalt, Chairperson
Telephone - 618-453-3341
Agriculture Building, Room 184

The program in outdoor recreation resource management provides interdisciplinary professional training in developing, maintaining and managing forests and wildlands as recreational areas. The courses offered are among those recommended by the National Recreation and Park Association.

A special feature of the outdoor recreation resource management option is the two-week tour through selected sections of the U.S. to study outdoor recreation and park facilities. This tour normally is programmed in May for the summer following completion of the third year in the program.

First Year		Fall	Spring
Bot 200 & 201[1]	General Botany with Lab	4	-
Chem 140a & b[1]	Inorganic/Organic	4	4
Zoo 118[1]	Introductory Zoology	-	4
GSD 101	English Composition	3	-
GSD 118[3]	Technical Report Writing	-	2
Math 140[3]	Calculus	-	4
GSE	Human Health and Well Being (select)[2]	2	2
For 200	Introduction to Forestry	1	-
		14	16

Second Year		Fall	Spring
For 301[1]	Social Influences on Forestry	-	3
Biol 307[1]	Environmental Biology	3	-
GSB	Sociology or substitute	3	-
GSB	Political Science or substitute	-	3
GSC	Humanities (select)[2]	3	-
GSC 205	Innovation for the Contemporary Environment	-	3
GSD 153[3]	Public Speaking	-	3
Math 283[3]	Introduction to Applied Statistics	3	-
For 201	Ecology of North American Forests	3	-
For 202	Tree Identification Lab	1	-
PLSS 240	Soil Science	-	4
		16	16

Third and Fourth Year

Professional and related courses are emphasized during the junior and senior years to develop competence in management of recreational resources of forested environments. A three week summer tour of outdoor recreation facilities is included.

[1]Satisfies GSA requirements.

[2]To determine what courses may be taken to satisfy the general education requirements for this major, please refer to the section, General Studies for the Transfer Student.

[3]Satisfies GSD requirements.

[4]Satisfies GSC requirements.

Forestry As A Major

Available to the Department of Forestry for teaching and research are the following: the Crab-Orchard National Wildlife Refuge; the Shawnee National Forest; the Union State Tree Nursery and Forest; many state parks and conservation areas, and the Kaskaskia Experimental Forest, together comprising several hundred thousand acres of forest land, all in the vicinity of the University. Also accessible for wood utilization teaching and research is a modern wood products plant located at the Vocational-Technical Institute east of Carbondale. The Southern Illinois University Experimental Forest and Giant City State Park provide additional facilities for teaching and research, especially during the spring camp. In addition, 30 staff members of the U. S. Forest Service Carbondale Research Center are affiliated with the Department of Forestry and help to enrich the University's forestry program.

Representative First Job Titles: Agricultural Aid, Recreational Resource Planner, Forest Engineer, Silviculture Specialist, Forest Utilization Specialist, Forest Recreation Specialist, Range Manager, Watershed Manager, Wildlife Manager, Forest Products Technologist, Animal Ecologist, Plant Ecologist, Pollution Control Specialist, Forest Conservation Specialist, Public and Environmental Health Forester, Parks Supervisor, Grazing Lands Supervisor, Research Forester, Forest Extension Worker, Timber Manager, Park Ranger, Soil Conservationist, Forest Resources Manager.

FRENCH*

College of Liberal Arts
(Bachelor of Arts)

Dr. Eugene Timpe - Chairperson
Telephone - 618-536-5571
Faner Bldg., Room 2166

Programs of study in foreign languages leading to the Bachelor of Arts degree in the College of Liberal Arts (with or without teacher certification) are offered in Classics, French, German, Russian, and Spanish.

Students majoring in a foreign language usually begin at the second or third-year level. The student who has completed two or more years of high school work in French, German, Russian, or Spanish may take a placement/proficiency exam.

In addition to the personal satisfaction and substantial growth in intellectual resources that come with mastery of a new language, there are numerous types of employment and career possibilities that are opened up by appropriate training in foreign languages. These can be classified as: 1) employment in non-language areas where language proficiency is a supporting factor, and 2) language-centered careers. Government agencies (federal, state, and many local), and businesses that have international dealings, employ great numbers of individuals on the basis of skills that are basically non-linguistic (scientists, engineers, librarians, social workers).

First Year		Fall	Spring
GSA	Science (select)[1]	-	3
GSB	Social Science (select)[1]	3	3
GSC	Humanities (select)[1]	3	-
GSD 101 & 117, 118 or 119	English Composition and Writing (select)[1]	3	2
Fr 123a,b	Elementary French[2]	4	4
GSD	Math (select)[1]	-	4
GSE	Human Health and Well Being (select)[1]	2	-
		15	16

Second Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB	Social Science (select)[1]	-	3
GSC	Humanities (select)[1]	3	-
GSD	Speech (select)[1]	2(3)	-
Fr 201a,b	Intermediate French[3]	4	4
Fr 220a,b	Intermediate French Conversation[4]	2	2
Math or CS	Mathematics or Computer Science[5]	-	3
		14	15

*See also Foreign Language Education under the College of Education.

[1]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

[2]Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GSC credit and four hours may be used to complete the thirty hours which are required from GSA, GSB, or GSC. If no foreign language is required, then the student may choose the GSC option instead. This first year of French does not count on the major.

[3]Required by the major.

[4]French 220 a,b is recommended but does not count towards major or minor requirements.

[5]One of these courses may be used to partially fulfill the Liberal Arts requirement for students beginning college anywhere Fall 1978 or later.

French As A Major

A major in French consists of 36 semester hours in courses above the 100 level with a minimum of 14 hours on the 300 level and 14 hours on the 400 level. A minor in French consists of 18 semester hours in courses above the 100 level.

NOTE: Foreign Language majors must satisfy College of Liberal Arts requirements. Transfer students who major in a foreign language must complete a minimum of 12 semester hours in language courses at SIUC.

Representative First Job Titles: Airline Stewardess, Customer Services Personnel, Public Relations Officer, Publications Personnel, Executive Secretary, Announcer, Continuity Writer, Copywriter, Correspondent, Critical Writer, Editorial Writer, Feature Writer, Program Assistant, Reporter, Assistant Librarian, Rewriter, Technical Writer, Educational Television Staff, Manufacturer's Representative, Sales Agent, Recreation Specialist, Interpreter.

GEOGRAPHY[1]

College of Education
(Bachelor of Science)

Coordinator of Teacher Education Studies
Telephone - 618-536-2329
Wham Building, Room 108

Dr. David Sharpe, Chairperson
Telephone - 618-536-3376
Faner Building, Room 4520

The Department of Geography provides a comprehensive curriculum to undergraduate students. Students may pursue the Bachelor of Science degree in Education or the Bachelor of Arts or the Bachelor of Science degree in Liberal Arts. The Bachelor of Science in Education prepares a student for secondary school teaching.

While students will generally avoid in-depth specialization at the undergraduate level, the program offers a breadth of courses in the field of geography. Students experience course work in economic, urban and regional planning resource management, and physical geography as well as in-depth studies in regional courses such as Illinois, United States and Middle and South America.

First Year		Fall	Spring
GSA 110	Earth Science	3	-
GSA 330	Weather	-	3
GSB 103	Geography of the Human Environment	3	-
GSC	Humanities (select)[2]	3	3
GSD 101, & 117, 118 or 119	English Composition and Writing (select)[2]	3	2
GSD 107	Intermediate Algebra	-	4
GSE	Human Health and Well Being (select)[2]	2	-
GSE 201	Healthful Living	-	2
Ed 201	The Teacher's Role in Public School Education	1	-
		15	14

Second Year		Fall	Spring
GSA	Science (select)[2]	3	3
GSA 322	Earth's Mineral Resources	-	3
GSB 212, 300 or 301	American Government or History of U.S.	3	-
GSC	Humanities (select)[2]	3	-
GSD 153	Public Speaking	-	2
Geog 302	Physical Geography	-	3
Geog 310	Introduction to Cartography	3	-
Elective[2,3]		4	4
		16	15

[1]See also the program under the College of Liberal Arts.

[2]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student. The following specific General Studies courses are required for teacher certification (these courses may be completed during the freshman or sophomore years): GSB 202, Introduction to Psychology; GSD 212, Introduction to American Government and Politics or GSB 300 or 301, History of the United States; GSD 101, English Composition; GSD 117, 118, or 119, Expository, Technical, or Creative Writing; GSD Public Communication; GSE 110-114 (2 hours), Physical Education Activities; GSE 201, Healthful Living; and one additional English course (GSC, GSD or departmental).

[3]Elective hours should be used in the following ways; (1) students may explore areas of interest; (2) they may select a minor.

Geography As A Major

The Department of Geography has an abundance of resources to supplement its instructional program. Morris Library contains over 100,000 maps used by geography majors in research and training. The maps include special regional displays as well as topographic maps.

The department also maintains a cartographic laboratory where students obtain training in map construction and preparation. The laboratory is an integral part of geographic research studies as well as spatial studies.

Climatological and meterological facilities are maintained by the department and staff who are involved in weather studies and research. The resources are used by students in their climatology and meterology courses.

Finally, the area of Southern Illinois provides a natural laboratory for geography students. The diversity in physical landforms and geomorphology, economic and cultural environments provides excellent conditions for students pursuing in-depth studies in Southern Illinois.

GEOGRAPHY*

College of Liberal Arts
(Bachelor of Arts)*

Dr. David Sharpe - Chairperson
Telephone - 618-536-3375
4520 Faner Building

The Department of Geography provides a comprehensive curriculum for undergraduate students. Students may pursue the Bachelor of Arts or the Bachelor of Science degree in Liberal Arts or the Bachelor of Science degree in Education. Programs for the Liberal Arts degree are oriented toward graduate work, environmental, and governmental careers. The Bachelor of Science in the Education degree program prepares a student for secondary school or junior college teaching.

While students will generally avoid in-depth specialization at the undergraduate level, the program offers a breadth of courses in the field of geography. Students experience course work in economic, urban and regional planning, resource management, and physical geography as well as in-depth studies in regional courses covering Illinois, U.S., and Middle and South America.

First Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB 103	Geography of the Human Environment (optional)	3	-
GSC	Humanities (select)[1]	3	3
GSD 101 & 117, 118 or 119	English Composition and Writing (select)[1]	3	2
GSD	Math (select)[1]	-	4
GSE	Human Health and Well Being (select)[1]	2	2
		14	14

Second Year		Fall	Spring
GSA	Science (select)[1]	3	-
GSB	Social Science (select)[1]	3	3
GSC or FL	Humanities (select)[1] or Foreign Language[2]	3 (4)	3 (4)
GSD	Speech (select)[1]	-	2 (3)
Geog 310	Cartography[4]	-	3
Geog 300	Introduction to Geography[3]	3	-
Math or CS	Mathematics or Computer Science[5]	-	3
Elective[6]		3	-
		15-16	14-16

*See also the program in the College of Education.

[1]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

[2]Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GSC credit and four hours may be used to complete the thirty hours which are required from GSA, GSB, or GSC. If no foreigh language is required, then the student may choose the GSC option instead.

[3]Required by the major.

[4]Geography 310 is required only for the social/urban planning and the physical environmental systems specializations.

[5]One of these courses may be used to partially fulfill the Liberal Arts requirement for students beginning college anywhere Fall 1978 or later.

[6]Elective hours should be used to explore areas of interest and to enhance career opportunities; or courses may be selected to satisfy Liberal Arts requirements (see College of Liberal Arts section).

Geography As A Major

The Department of Geography has an abundance of resources to supplement its instructional program. Morris Library contains over 100,000 maps used by geography majors in research and training. The maps include special regional displays as well as topographic maps.

The department also maintains a cartographic laboratory where students obtain training in map construction and preparation. The laboratory is an integral part of geographic research studies as well as spatial studies.

Climatological and meteorological facilities are maintained by the department and staff who are involved in weather studies and research. These resources are used by students in their climatology and meteorology courses.

Finally, the area of southern Illinois provides a natural laboratory for geography students. The diversity in physical landforms and geomorphology, economic and natural resources, and cultural environment provide excellent conditions for students pursuing in-depth studies in southern Illinois.

Representative First Job Titles: Geographer, Researcher, Economic Geographer, Political Geographer, Urban Geographer, Physical Geographer, Regonal Geographer, Cartographer, Map Cataloger, Regional Analyst, Photo-Intelligence Specialist, Climatological Analyst, Community Planner, Editor, Air Traffic Controller, Map Librarian, Cultural Geographer, Location Analyst, Weather and Climate Analyst, Sales Representative, Resource Management Personnel, Planner, Construction Geographer, Highway Planner, Conservation Specialist.

GEOLOGY
College of Science
(Bachelor of Science)
(Bachelor of Arts)

Dr. Russell R. Dutcher,
Departmental Executive Officer
Telephone 618-453-3351
Parkinson Laboratory, Room 108

Geology is the science of the earth. It deals with earth materials, processes and history. Both field and laboratory studies are important aspects of geological work. Employment opportunities for geologists are found within the petroleum, coal and other mining industries, state and federal geological surveys, other minerals-related industries, private and public organizations concerned with the development of water resources, engineering firms, and government agencies concerned with planning, land use, geologic hazards, construction, and land reclamation. Many geologists become teachers at a variety of levels from grade school to college. The Department of Geology at SIUC can provide students with sound, broad training in geology.

First Year		Fall	Spring
Geol 220	Physical Geology[1]	3	-
Geol 221	Historical Geology	-	3
GSD 101	English Composition	3	-
GSD 117 or 118	Expository Writing or Technical Report Writing	-	2
Math 110 or 111	College Algebra and Trigonometry[1,4]	3	2
Chem 222	Introduction to Chemical Principles[1,4]	4	4
GSB	Social Studies	-	3
GSE	Health and Physical Development	1	1
		14	15

Second Year		Fall	Spring
Phys 203, 253 or 205, 255	College Physics or University Physics[1,3]	4	4
FL	German, Russian or French recommended[1,4]	4	4
GSD 152 or 153	Speech	2 (3)	-
GSC	Humanities	-	3
GSE	Health and Physical Development	1	1
Geol 310 or	Mineralogy[2]	4	-
Math 150	Calculus I[3]	4	-
Geol 374 or	Geomorphology[2]	-	3
GSB	Social Studies	-	(3)
		15 (16)	15

Third and Fourth Years
The last two years of a student's program allow some concentration on specific professional objectives. Students in the Bachelor of Arts degree program would take geology courses, biology courses, social studies, humanities and a large number of elective courses. Students in the Bachelor of Science degree program would take some additional social studies and humanities, biology courses, required geology courses and geology electives, science or technology electives and free electives. Students are encouraged to take independent field and laboratory research problems in their senior year.

[1]Approved substitute for GSA 110.

[2]If more advanced geology courses such as mineralogy and geomorphology are not offered at your school, take calculus, social studies, humanities or a good botany or zoology course instead. Our program is designed so that a transfer student can easily finish the geology curriculum in two years provided the student has taken most of the specified courses in chemistry, physics, foreign language or mathematics.

[3]If Physics 205 is taken, the student must enroll concurrently (or previously) in Math 150.

[4]Students in the College of Science must take one year of foreign language, one year of math, 6 semester hours of physical sciences, and 6 semester hours of bioloical sciences.

Geology As A Major
Students in geology can work toward a Bachelor of Arts or a Bachelor of Science degree. The Bachelor of Science curriculum is recommended for those planning to pursue graduate studies or a professional career in geology. A summer field course in the Rocky Mountains is required for the B.S. degree and is strongly recommended for the B.A. degree. This course is normally taken between the junior and senior years. The Department of Geology has appreciable holdings of modern geologic laboratory and field equipment. Students are permitted to utilize this equipment in courses and are encouraged to use it in independent study projects. With few exceptions, classes for geology majors tend to be small, and students have the opportunity for close contact with the faculty and receive considerable individual attention both within and outside the classroom. The Department assists students in finding suitable graduate programs or jobs in geology and related areas.

Representative First Job Titles: Geologist, Astrogeologist, Cartographist, Conservation Scientist, Economic Geologist, Geochemist, Geological Engineer, Geological Oceanographer, Geological Researcher, Geophysical Exploration Scientist, Geophysicist, Groundwater Geologist, Petroleum Geologist, Photogeologist, Resource Evaluator, Sedimentologist, Stratigraphist, Surveying Geologist, Geomorphologist, Structural Geologist, Product Studies and Testing Geologist.

GERMAN*
College of Liberal Arts
(Bachelor of Arts)

Dr. Eugene Timpe - Chairperson
Telephone - 618-536-5571
Faner Building, Room 2166

Programs of study in foreign languages leading to the Bachelor of Arts degree in the College of Liberal Arts (with or without teacher certification) are offered in Classics, French, German, Russian, and Spanish.

Students majoring in a foreign language usually begin at the second or third-year level. The student who has completed two or more years of high school work in French, German, Russian, or Spanish may take a placement/proficiency exam.

In addition to the personal satisfaction and substantial growth in intellectual resources that come with mastery of a new language, there are numerous types of employment that are opened up by appropriate training in foreign languages. These can be classified as: 1) employment in non-language areas, and 2) language-centered careers. Government agencies (federal, state, and many local), and businesses that have international dealings, employ great numbers of individuals on the basis of skills that are basically non-linguistic (scientists, engineers, librarians, social workers).

First Year		Fall	Spring
GSA	Science (select)[1]	-	3
GSB	Social Science (select)[1]	3	3
GSC	Humanities (select)[1]	3	-
GSD 101 & 117, 118 or 119	English Composition and Writing (select)[1]	3	2
Ger 126a,b	Elementary German[2]	4	4
GSE	Human Health and Well Being (select)[1]	2	-
GSD	Math (select)[1]	-	4
		15	16

Second Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB	Social Science (select)[1]	-	3
GSC	Humanities (select)[1]	3	-
GSD	Speech (select)[1]	2 (3)	-
Ger 201a,b	Intermediate German[3]	4	4
GSE	Human Health and Well Being (select)[1]	2	-
Math or CS	Mathematics or Computer Science[4]	-	3
		14	13

*See also Foreign Language Education under the College of Education.

[1]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

[2]Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GSC credit and four hours may be used to complete the thirty hours which are required from GSA, GSB, or GSC. If no foreign language is required, then the student may choose the GSC option instead. The first year of German does not count on the major.

[3]Required by the major.

[4]One of these courses may be used to partially fulfill the Liberal Arts requirement for students beginning college anywhere Fall 1978 or later.

German As A Major

A major in German consists of 36 semester hours in courses above the 100 level, to include the basic language sequence and one literature course. The student must complete 12 hours on the 300 level and 8-9 hours on the 400 level and 7-8 hours of electives. A minor in German consists of 18 semester hours in courses above the 100 level.

NOTE: Foreign Language majors must satisfy College of Liberal Arts requirements. Transfer students who major in a foreign language must complete a minimum of 12 semester hours in language courses at SIUC.

Representative First Job Titles: Airline Stewardess, Customer Services Personnel, Public Relations Officer, Publications Personnel, Executive Secretary, Announcer, Continuity Writer, Copywriter, Correspondent, Critical Writer, Editorial Writer, Feature Writer, Program Assistant, Reporter, Assistant Librarian, Rewriter, Technical Writer, Educational Television Staff, Manufacturer's Representative, Sales Agent, Recreation Specialist, Interpreter.

HEALTH EDUCATION
College of Education
(Bachelor of Science)

Coordinator of Teacher Education Services
Telephone - 618-536-2329
Wham Building, Room 108

Dr. Donald Boydston, Chairperson
Telephone - 618-453-2777
Arena, Room 126

The Department of Health Education offers two specializations within the health education major and three programs of minimal professional preparation. The two specializations are:

1. Health Education in Secondary Schools. For those planning to teach or supervise health education in the secondary schools.

2. Health Education in Elementary Schools. For those planning to teach or supervise health education in the elementary schools.

The three minimal professional preparations are:

1. Health Education in Secondary Schools. For those certified to teach in Illinois secondary schools who wish minimal preparation to teach health education.

2. Health Education in Elementary Schools. For those certified to teach in Illinois elementary schools who wish minimal preparation to teach health education.

3. Driver Education. For those planning to teach driver education in Illinois secondary schools.

These specializations in general, constitute minimal preparation for the positions listed. Consequently, all candidates are strongly urged to complete additional work in the field.

First Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB 202	Introduction to Psychology	3	-
GSC	Humanities (select)[1]	3	3
GSD 101	English Composition	3	-
GSD 117, 118 or 119	Writing (select)[1]	-	2
GSD	Mathematics (select)[1]	-	4
GSE 201	Healthful Living	-	2
GSE	Human Health and Well Being (select)[1]	1	-
Educ 201	Teacher's Role in Public School Education	-	1
Electives		3	-
		16	15

Second Year		Fall	Spring
GSA	Science (select)[1]	-	3
GSB 300, 301 or 212	History of U.S. or American Government	3	-
GSB	Social Science (select)[1]	-	3
GSC	English Elective in Humanities (required)	3	-
GSD	Speech (select)[1]	-	2
GSE	Human Health and Well Being	1	-
Electives		8	7
		15	15

[1]Refer to the section General Studies for the Transfer Student.

[2]The following specific General Studies courses listed are required for Teacher's Certification: GSB, Introduction to Psychology; GSD 212, Introduction to American Government and Politics or GSB 300 or 301, History of the United States; GSD 101, English Composition; GSD 117, 118 or 119, Expository, Technical Report, or Creative Writing; GSD 153, Public Speaking; GSE 110-114 (2 hours), Physical Education activities; GSD 201, Healthful Living; and one additional English course (GSC, GSD or departmental).

HISTORY[1]

College of Education
(Bachelor of Science)

Coordinator of Teacher Education Services
Telephone - 618-536-2329
Wham Building, Room 108

The history major consists of 32 semester hours. From this six courses must be evenly distributed over either two or three fields chosen from American, European, or Latin American/ African history offerings; i.e., either two courses in each of the three fields or three courses in each of two of the three fields. The student must also complete a total of three courses at the 400 level.

First Year		Fall	Spring
GSA	Science (select)[2]	3	3
GSB 202	Introduction to Psychology	3	-
GSB 300	Origins of Modern America, 1492-1877	-	3
GSC	Humanities (select)[2]	3	3
GSD 101	English Composition	3	-
GSD 117, 118, or 119	Writing (select)[2]	-	2
GSD 153	Public Speaking	-	2
GSE	Human Health and Well Being--activity	1	-
GSE 201	Healthful Living	-	2
Ed 201	Teacher's Role in Public School Education	-	1
Hist 205	History of Western Civilization	3	-
		16	16

Second Year		Fall	Spring
GSA	Science (select)[2]	3	-
GSB	Modern American from 1877 to Present	3	-
GSB	Social Studies (select)[2]	-	3
GSC	English Elective in Humanities (select)[2]	3	-
GSD	Math (select)[2]	-	4
GSE	Human Health and Well Being--activity	1	-
Hist	Electives	6	9
		16	16

[1]See also the program under the College of Liberal Arts.

[2]Refer to the section General Studies for Transfer Students.

History As A Major

To include the following courses required for teacher certification: GSB 202, Introduction to Psychology; GSB 212, Introduction to American Government and Politics OR GSB 300 or 301, History of the United States; GSD 101, English Composition; GSD 117, 118, 119, Expository, Technical, or Creative Writing; GSD 153, Public Speaking; GSE 100-114 (2 hours), Physical Education Activities; GSE 201, Healthful Living; One additional English course (GSC, GSD, or departmental).

HISTORY*
College of Liberal Arts
(Bachelor of Arts)

Dr. Harry Ammon - Chairperson
Telephone - 618-453-4391
Faner, Room 3374

The history major consists of 32 semester hours. From this, six courses must be evenly distributed over either two or three fields chosen from American, European, or Latin American/African history offerings; i.e., either two courses in each of the three fields or three courses in each of two of the three fields. The student must also complete a total of 9 semester hours at the 400 level, and write a term paper in conjunction with one 400-level course.

First Year		Fall	Spring
GSA	Science (select)[1]	3	3
Hist	Western Civilization[2]	3	3
GSC	Humanities (select)[1]	-	3
GSD 101 & 117, 118 or 119	English Composition and Writing (select)[1]	3	2
GSD	Speech[1]	-	2 (3)
GSD	Math (select)[1]	4	-
GSE	Human Health and Well Being (select)[1]	2	2
		15	15-16

Second Year		Fall	Spring
GSA	Science (select)[1]	3	-
GSB 300, 301	History of the U.S.[2]	3	3
GSB	Social Science (select)[1]	3	3
GSC or FL	Humanities (select)[1] or Foreign Language[3]	3 (4)	3 (4)
Math or CS	Mathematics or Computer Science[4]	-	3
Elective[5]		3	3
		15-16	15-16

*See also the program under the College of Education.

[1]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

[2]Recommended by the major.

[3]Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GSC credit and four hours may be used to complete the thirty hours which are required from GSA, GSB, or GSC. If no foreign language is required, then the student may choose the GSC option instead.

[4]One of these courses may be used to partially fulfill the Liberal Arts requirement for students beginning college anywhere Fall 1978 or later.

[5]Elective hours should be used to explore areas of interest and to enhance career opportunities; or courses may be selected to satisfy Liberal Arts requirements (see College of Liberal Arts section).

History As A Major

When possible, transfer students should contact the department prior to their first semester of attendance.

The program in history is an excellent background for future work in law school, government service and other professional areas as well as graduate schools. The History Department maintains its own advisement system to help the student design a program which best suits his or her interests and needs. Exceptional students are invited to participate in a departmental honors program.

Representative First Job Titles: Administrative Assistant in Library, Administrative Assistnat in Museum, Museum Curator, Archival Worker, Exhibit Preparation Historian, Genealogical Background Researcher, Legal Assistant, Administrative Aide, College, Sales Representative, Biography Writer, Political Systems Researcher, Religion & Philosophy Studies Historian, Sociological Researcher, American Government Studies Historian, Censoring (Officer) Historian, Volunteer (Peace Corps), Legislative Budget Analyst, International Law & Relations Researcher, Legislative Aide, Public Information Historian, Claims Authorizer, Director (Community Historical Society), Editor.

HOME ECONOMICS EDUCATION
(Home Economics Extension)
College of Education
(Bachelor of Science)

Coordinator of Teacher Education Services
Telephone - 618-536-2329
Wham Building, Room 108

Anna Carol Fults, Coordinator
Telephone - 618-453-2534
Quigley Hall, Room 131

This program is designed to meet the needs of students desiring to teach home economics in school departments maintained according to the provisions of the federal vocational acts. A vocational home economics certificate requires a bachelor's degree in home economics from an institution and in a course of study approved for teacher training by the Vocational Division of the United States Office of Education and by the State Board for Vocational Education and Rehabilitation. Southern Illinois University is so approved for training home economics teachers.

These courses prepare a person for positions as Home Advisors, 4-H Club Agents or Advisors, and, with further training, extension specialists.

First Year		Fall	Spring
GSA	Science (select)[1]	-	3
GSB 203	The Sociological Perspective	4	-
GSB 212	Intro. to American Government & Politics	-	4
GSC 101	Introduction to Art	3	-
GSD 107	Intermediate Algebra	4	-
GSD 101	English Composition	3	-
GSD 118	Technical Report Writing	-	2
GSE	Human Health and Well Being	-	2
F&N 100	Fundamentals of Nutrition	3	-
Chem 140a	Chemistry[2]	-	4
C&T 127	Clothing Construction	-	2
		17	17

Second Year		Fall	Spring
GSA	Science (select)	-	3
GSB 202	Introduction to Psychology	3	-
GSE 201	Healthful Living	-	2
GSC	Humanities (select)[1]	3	3
C&F 227	Marriage and Family Living	3	-
C&F 237	Child Development	-	3
C&T 150	Survey of Clothing	-	2
F&N 156	Fundamentals of Foods	3	-
Chem 140b	Survey of Chemistry	4	-
GSD 153	Public Speaking	-	3
		16	16

[1]Refer to section General Studies for the Transfer Student.

[2]Approved substitute for General Studies.

Refer to Undergraduate Catalog for departmental requirements and requirements taught via General Studies.

Home Economics Education As A Major

No minor is required. No foreign language required.

Child Development practicum in Nursery school; Home Management practicum; supervised student teaching in an area high school; Field experiences with a Home Economics Extension advisor are available.

Occupational education programs are included as well as emphasis on consumer-homemaking so that graduates qualify for the new curricular emphasis in Illinois High Schools.

Graduate degrees available.

HOME ECONOMICS EDUCATION
(Teacher Certification)
College of Education
(Bachelor of Science)

Coordinator of Teacher Education Services
Telephone - 618-536-2329
Wham Building, Room 108

Anna Carol Fults, Coordinator
Telephone - 618-453-2534
Quigley Hall, Room 131

This program is designed to meet the needs of students desiring to teach home economics in school departments maintained according to the provisions of the federal vocational acts. A vocational home economics certificate requires a bachelor's degree in home economics from an institution and in a course of study approved for teacher training by the Vocational Division of the United States Office of Education and by the State Board for Vocational Education and Rehabilitation. SIUC is so approved for training home economics teachers.

First Year		Fall	Spring
GSB 203	The Sociological Perspective	3	-
GSC 101	Introduction to Art	3	-
GSD 107	Intermediate Algebra	4	-
GSD 101	English Composition	3	-
GSD 117 or 118	Technical Report or Expository Writing	-	2
GSD 153	Public Speaking	-	3
GSE 201	Healthful Living	-	2
Chem 140	Chemistry[2]	-	4
C&T 127	Clothing Construction	-	3
Ed 201	Teacher's Role in Public School Education	-	1
F&N 100	Fundamentals of Nutrition	3	-
GSC	Humanities (select)[1]	-	3
		16	18

Second Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB 202	Introduction to Psychology	3	-
GSB 212	Introduction to American Government & Politics	-	4
GSC	English Elective in Humanities (select)[1]	-	3
GSE	Human Health and Well Being (select)[1]	-	2
C&F 237	Child Development	-	3
C&F 227	Marriage and Family Living	3	-
FEM 340	Consumer Problems[3]	2	-
F&N 156	Fundamentals of Foods	3	-
ID 131	Introduction to Design, Home Furn. and Int.	4	-
VES 320	Home Economics as a Profession	-	1
		18	16

[1]Refer to section General Studies for the Transfer Student.

[2]Substitutes for GSA 106 Chemistry for non-science majors.

[3]Or GSB 346 Consumer Choice and Behavior.

The following courses are required for Home Economics Education: GSB 202, GSB 203, 212, GSC 101, GSD 101, 117, or 118, 153, 107, GSE 201, 2 hours of physical education activity, and one additional English GSC, GSD or departmental course.

Home Economics Teacher Education As A Major

No minor required. No foreign language required.

Child Development practicum in Nursery school; Home Management practicum; supervised student teaching in an area high school; Field experience with a Home Economics Extension advisor are available.

Occupational education programs are included as well as emphasis on consumer-homemaking so that graduates qualify for the new curricular emphasis in Illinois High Schools.

Graduate degrees available.

HOME ECONOMICS EDUCATION
(Teaching Vocational Home Economics Specialization, Special Education Emphasis)
College of Education
(Bachelor of Science)

Coordinator of Teacher Education Services
Telephone - 618-536-2329
Wham Building, Room 108

Anna Carol Fults, Coordinator
Telephone - 618-453-2534
Quigley Hall, Room 131

This program prepares home economics teachers for special needs learners.

First Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB 202	Introduction to Psychology	-	3
GSB 203	Sociological Perspective	4	-
GSC 101	Introduction to Art	3	-
GSD 101	English Composition	3	-
GSC	Humanities (select)[1]	3	-
GSD 107	Intermediate Algebra	-	4
GSD 118	Technical Report Writing	-	2
F&N 100	Fundamentals of Nutrition	-	3
		16	15

Second Year		Fall	Spring
GSD 153	Public Speaking	3	-
Chem 140	Survey of Chemistry[2]	4	-
GSB 212	Introduction to American Government & Politics	-	4
GSC	English Elective in Humanities (select)[1]	3	-
GSE 201	Healthful Living	2	-
GSE	Human Health and Well Being (select)[1]	-	2
C&F 227	Marriage and Family Living	3	-
C&F 237	Child Development	-	3
C&T 127	Clothing Construction	-	3
Educ 201	Teacher's Role in Public School Education	1	-
Elective		-	3
		16	15

[1]Refer to section General Studies for the Transfer Student.

[2]Substitutes for GSA 106, Chemistry for non-science majors.

The following courses are required for teacher certification: GSB 202, Introduction to Psychology; GSB 212, Introduction to American Government and Politics, or GSB 300 or 301, U.S. History; GSD 101, English Composition; GSD 117, 118 or 119, Expository, Technical Report, or Creative Writing; GSB 153, Public Speaking; GSE 100-114 (2 hours), Physical Education Activities; GSE 201, Healthful Living; one additional English course (GSC, GSD, or departmental).

INDUSTRIAL TECHNOLOGY
College of Engineering and Technology
(Bachelor of Science)

Dr. Leon Dunning, Chairperson
Telephone - 618-536-3396
Technology Building, Room D-109

The Industrial Technology program has as its objective the training of qualified personnel who can develop and direct the manufacture and distribution of products. The program is a balanced curriculum of studies drawn from a variety of disciplines relating to processes, principles of distribution, and concepts of industrial management and human relations. Communication skills, humanities, and social sciences are studied to develop managerial abilities. Knowledge of physical sciences, mathematics, design, and technical skills gained from the program allow the graduate to cope with technical and production problems.

The specialty is designed to provide the necessary education for entry into employment upon completion of the bachelor's degree. Industrial Technology courses contain topics related to the manufacture and distribution of products.

Requirements for a concentration in Industrial Technology include one of four elective areas: Industrial Design, Manufacturing, Supervision and Personnel, or Technical Sales.

First Year		Fall	Spring
GSA 106	Chemistry for Non-Science Majors	-	3
GSB	Social Science (select)	3	3
GSC	Humanities (select)	-	3
GSD 101	English Composition	3	-
GSD 118	Technical Report Writing	-	2
GSE	Human Health and Well Being (select)	-	2
ET 103, 104	Engineering Drawing I, II	3	3
Math 111	College Algebra and Trigonometry[1]	5	-
		14	16

Second Year		Fall	Spring
GSB	Social Science (select)	-	3
GSC	Humanities (select)	6	-
GSD 153	Public Speaking	-	2
ET 245a	Electrical Systems for Industry	-	3
IT 307	Analytical Problems in Technology	3	-
IT 308	Fundamentals of Industrial Processes	-	4
Phys 203a,b & 253a,b	College Physics and Lab[2]	4	4
Engr 222	Computational Methods	2	-
		15	16

Third and Fourth Year

The last two years of a student's program concentrate on specialized objectives. For transfer students with an Associate degree in an occupational program the required courses are dependent on the student's previous program.

[1]Math 111 substitutes for GSD Math.

[2]Physics 203 and 253 may be counted as GSA credit.

Industrial Technology As A Major

Community College Occupational and Technical credit (Data Processing, Electronics Technology, Management, Marketing, Mechanical Technology, Metals Technology, Plastics, Transportation, Building Construction, Architectural Drafting to name a few) can be accepted and applicable towards degree requirements. This permits the student to obtain a Bachelor of Science degree in a minimum length of time.

For the bachelor's degree the recommended guidelines are met through the completion of 55 semester hours in the Industrial Technology core, and 20 in the technical specialization.

Employment opportunities for graduates are excellent which permits a wide range of initial job selectivity and more flexibility for later job promotion or job transfer. Federal statistics show that in the present decade, the need for technologists and related workers will exceed that for all other occupational groups. To the technologist, industry offers interesting and rewarding positions with considerable potential for growth and development.

Positions needed in all types of industry are associated with production planning and scheduling, process design, quality control, methods analysis, personnel supervision, material and equipment procurement, facility planning, equipment design, job estimation, technical sales, maintenance supervision, and other production-related functions.

Representative First Job Titles: Manufacturing Manager, Production Planning and Control, Quality Assurance Specialist, Safety Engineer, Plant Manager.

INDUSTRIAL TECHNOLOGY
Mining Technology Specialization
Bachelor of Science
College of Engineering and Technology

Dr. Leon Dunning, Chairperson
Telephone - 618-536-3396
Technology Bldg., Room D-109

The world-wide energy crisis has created a growing demand for coal and other mining products and the need for technologists and engineers in the mining industry is expected to increase dramatically in the next decade. To help meet this growing demand Southern Illinois University at Carbondale offers courses in mining technology which culminate in a Bachelor of Science degree in Industrial Technology.

Course Requirements

The program is primarily designed to provide a capstone of subject matter for those students completing programs in mining technology or related areas at community colleges or technical institutes. Courses offered at Southern Illinois University at Carbondale include topics such as coal analysis, coal mining problems, labor relations, materials handling, surveying, motion and time study, quality control, underground and surface mining technology, and others.

The required courses are dependent on the student's academic background and work experience. In general, the baccalaureate degree can be obtained in two academic years after completing an associate degree in mining technology or a related field at a community college or technical institute.

Career Opportunities

Employment opportunities in the mining industry are practically unlimited with many top management positions available for college educated people with mining experience.

Representative First Job Titles: Production Planning and Control, Quality Assurance Specialist, Safety Engineer.

INTERIOR DESIGN

Division of Comprehensive Planning and Design
College of Human Resources
(Bachelor of Science)

Mr. Paul J. Lougeay
Architect - Coordinator
Telephone - 618-453-3734
Quigley Hall, Room 128c

The Division of Comprehensive Planning and Design offers a concentrated course of study in interior design. Through emphasis on professional interior design problems and standards, architectural technology, art, graphic design, business practice, and the history of architecture and interior design, the student receives a comprehensive, interdisciplinary education in preparation for designing and administrative positions in the fields of residential, commercial, and contract design. The Interior Design program is accredited by the Foundation for Interior Design Education Research.

The profession of interior design is a young and growing one offering unusual opportunities to those with design ability. The environmental needs of a changing society offer challenges which can be met only by imagination, skill, and training. The interior designer, industrial designer, architect, landscape architect, and urban planner often collaborate in planning and creating environmental spaces to serve human needs and aspirations; the interior designer is vital to the team in determining the quality of interior space. An interior design graduate is qualified to practice professionally in an interior design studio, space-planning firm, architectural firm, as well as in industrial design, retail sales, or in institutions and government agencies. Below is a recommended course of study for undergraduates.

First Year		Fall	Spring
GSD 101 & 117, 118 or 119	English Composition[1] and Writing (select)[1]	3	2
GSD 107	Intermediate Algebra[1]	4	-
GSC 101	Introduction to Art	-	2
GSE	Human Health and Well Being (select)	-	1
Art 200	Beginning Drawing[2]	2	-
STC 215a,b	Drafting Graphics[2]	3	3
ID 231	Introduction to Interior Design[2]	3	-
ID 332a	Construction Methods & Materials[2]	-	6
		15	15

Second Year*		Fall	Spring
GSB 202	Introduction to Psychology	-	2
GSC 205	Innovation for the Contemporary Environment	3	-
GS	Select from Areas A,B,C,D,E	2	2
C&T 104	Basic Textiles	2	-
ID 390	Design Presentation and Delineation[2]	3	-
ID 332b	Construction Methods and Materials[2]	3	-
ID 391a	Intermediate Interior Design	-	4
ID 381, 382	Furniture & Interior Design History[2]	2	2
ID 300	Display & Exhibition Design	-	2
ID 393	Architectural Analysis	-	3
		15	15

[1]Required General Studies courses.

[2]These courses are required for an Interior Design major. For specific information regarding the acceptibility of a major requirement from a junior college, you may contact the coordinator of the Interior Design program. Examples of work must be presented to, and approved by I.D. Coordinator for credit transfer.

*Transfer students should concentrate on General Studies courses during the second year, since more advanced major courses should be taken at SIUC.

Third and Fourth Year

Studies during the third and fourth years consist of Design Studios and selected courses in Architecture and Advanced Interior Design. Special emphasis is given toward departmental requirements and recommended elective courses. Third and fourth year Interior Design courses include ID 383, 384, 391a,b,c, 394 and 491.

General Studies other than those marked "I" are highly recommended for Interior Design majors.

Because of the large number of laboratory classes in Interior Design, the junior college transfer student who has completed an associate degree may require up to three years additional study to complete the baccalaureate degree.

Representative First Job Titles: Interior Designer, Assistant to the Architect, Customer Services Specialist, Design Reviewer, Manufacturer's Representative, Price Analyst, Researcher, Customer Relations Officer, Architectural Interior Designer, Exhibition Designer, Home Furnishing Consultant, Office Landscape Design, Public Building Interior Designer, Commercial Interior Designer, Residential Interior Designer, Decorations Selector, Space Planner, Purchasing Specialist, Theater Designer, Retail Merchandising Supervisor.

JOURNALISM
(News Editorial)
(Advertising)
(Photojournalism)
College of Communications and Fine Arts
(Bachelor of Science)

Dr. Vernon Stone, Chairperson
Telephone - 618-536-3361
Communications Bldg North Wing

Journalism courses are designed to give thorough professional training in both theory and practice in a number of career areas. These include news-editorial and advertising positions on newspapers magazines, industrial publications, cable communications systems, and other news media; in other advertising careers; and in public relations, media management, photojournalism, teaching, and research.

Undergraduates are urged to enter the Department of Journalism immediately in order that they may obtain the advantage of Journalism Advisement. Students may take JRNL 300 during their second semester in the freshman year. Proficiency in typing is required (30 words per minute) to enter JRNL 310, the first writing course.

First Year		Fall	Spring
GSA	Science (select)[1]	-	3
GSB	Social Studies (select)[1]	3	3
GSC	Humanities (select)[1]	3	-
GSD 113	Introduction to Math	2	-
GSD 112	Basic Concepts of Statistics	-	2
GSD 101	English Composition	3	-
GSD 117, 118, 119	Writing (select one)[1]	-	2
GSD 152, 153	Interpersonal Communication or Public Speaking	-	2 (3)
GSE	Human Health and Well Being (select)[1]	1	1
Elective		3	-
JRNL 300	Mass Media in Modern Society	-	3
		15	16 (17)

Second Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB	Social Studies (select)[1]	-	3
GSC	Humanities (select)[1]	3	3
GSE	Human Health and Well Being (select)[1]	1	1
*JRNL 370	Principles of Advertising	3	-
*JRNL 310	Writing for the Mass Media	-	3
Electives		5	2
		15	15

*Required courses for major in Journalism.

[1]See section on General Studies for the Transfer Student.

See also Journalism in College of Education for Teacher Certification requirements.

Journalism As A Major

In addition to the General Studies courses, the academic requirements for a Bachelor of Science Degree in Journalism includes 30-34 hours in journalism course work as approved by the School, 26-30 hours of upperclass electives outside the area of journalism, and 15 hours in a minor area approved by the School. The minor must be declared by the time a student has accrued 90 semester hours.

Two major specializations, news-editorial and advertising, are approved by the professional accrediting agency, the American Council on Education for Journalism.

The advertising specialization--A broad, yet intensive selection of specialized courses prepares the student to enter a wide variety of fields, including sales, copy writing, production, administration, retailing, and agency media and layout.

The news-editorial specialization--In addition to the general requirements of this sequence, the student may elect to take a variety of electives to a concentration of electives in the following areas: community and suburban newspaper journalism, magazine journalism, or telecommunications journalism.

Photojournalism--This specialization, administered jointly by the School of Journalism and the Department of Cinema and Photography, prepares students to be photographer-reporters, photo editors, and to work in other related positions.

Graduate degrees are available.

Representative First Job Titles: Advertising Agent, Advertising Campaigns Planner, Advertising Campaigns, Controller, Advertising Campaigns Executive, Media Scheduling Officer, Mass Communication Analyst, Photographer/Reporter, Photo Editor, Writer, Editor, Public Opion Polls Manager, Publications Staff, Publicity Staff, Sales Agent, Telecommunications Expert, Newspaper Reporter, Newspaper Management Staff, Mass Media Management Staff, Copywriter, Newspaper Columnist, Magazine Production & Design Staff, Cable Communication Specialist, Graphic Communication Specialist, Researcher, Public Affairs Reporter.

LANGUAGE ARTS AND SOCIAL STUDIES

College of Education
(Bachelor of Science)

Coordinator of Teacher Education Services
Telephone - 618-536-2329
Wham Building, Room 108

Dr. Billy Dixon, Chairperson
Telephone - 618-453-2239
Wham Building, Room 327

A major in language arts and social studies may be pursued through the Department of Curriculum Instruction and Media. Such a major is designed to prepare individuals for teaching at the junior high school level.

First Year		Fall	Spring
GSA	Science (select)[1]	3	-
GSB 300	Origins of Modern America 1492-1877[2]	3	-
GSB 301	Modern America from 1877 to Present[2]	-	3
GSC	Humanities (select)[1]	3	-
GSD 101	English Composition	3	-
GSD 153	Public Speaking	3	-
GSD 117	Expository Writing	-	2
GSD 107	Intermediate Algebra	-	4
GSE 201	Healthful Living	-	2
GSE	Human Health and Well Being-activity (select)[1]	2	-
Ed 201	Teacher's Role in Public School Education	-	1
Elective	World History	-	3
		17	15

Second Year		Fall	Spring
GSA	Science (select)[1]	3	-
GSA 330	Weather[2]	-	3
GSB 212	Introduction to American Government & Politics[3]	4	-
GSB 211	Contemporary Economics[2]	3	-
GSB 202	Introduction to Psychology	-	3
GSC 200	Oral Interpretation of Literature[2]	3	-
GSC 365	Shakespeare[2]	-	3
Pol Sci 213	State and Local Government	-	3
Elective	American and World History	3	3
		16	15

[1]Refer to the section General Studies for the Transfer Student.

[2]These General Studies courses can be applied toward major requirements.

Junior High School Language Arts and Social Studies As A Major

Refer to the Undergraduate Catalog for specific major requirements.

To include the following required courses: GSA 330, The Atmospheric Environment; GSB 212, Introduction to American Government and Politics; GSB 211, Contemporary Economics; GSB 202, Introduction to Psychology; GSB 300, History of the United States 1492 to 1877; GSB 301, History of the United States 1877 to Present; GSC 365, Shakespeare (or English 471 or 472); GSD 101, English Composition; GSD 117, 118, or 119, Expository, Technical, or Creative Writing; GSD 153, Public Speaking; GSE 100-114 (2 hours), Physical Education Activity; GSE 201, Healthful Living; and one additional English GSC, GSD or departmental course.

LATIN AMERICAN STUDIES

College of Liberal Arts
(Bachelor of Arts)

Dr. David P. Werlich - Director
Telephone - 618-453-5321
Faner 2370

Southern Illinois University at Carbondale traditionally has had a strong interest in Latin America. An unusually large number of faculty specialists offer many courses related to that region and the Morris Library contains an outstanding collection of Latin American materials. The University initiated its Latin American Studies program in 1958 to prepare students for careers in business, education and government and to serve others who desired more information about the nations south of the United States. An interdisciplinary program, it includes training in language, the social sciences and humanities. Beyond the minimum core of courses required for the major, maximum flexibility is provided to tailor the curriculum to the needs and interests of the individual student.

Latin American Studies majors also complete a minor or other coherent program (usually 15 to 18 hours) in a standard discipline or career specialty.

The College of Liberal Arts grants the Bachelor of Arts degree in Latin American Studies. The Latin American Studies Advisory Committee supervises the program. Interested students should consult the director for the Latin American Studies major.

First Year		Fall	Spring
GSA	Science (select)[1]	3	-
GSB 104	The Human Experiences-Anthropology (select)[1]	3	-
GSB 212	Intro to American Gov't & Politics (select)[2]	-	4
GSC	Humanities (select)[1]	-	3
GSD 101 & 117, 118, or 119	English Composition and Writing (select)[1]	3	2
SPAN 140a,b	First Year Spanish[3]	4	4
GSE	Human Health & Well Being (select)[1]	2	2
		15	15

Second Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB 211	Contempory Ecomonics[2]	-	3
GSC	Humanities (select)[1]	3	-
GSD	Speech (select)[1]	2 (3)	-
GSD	Math (select)[1]	-	4
SPAN 201a,b	Second Year Spanish[3]	4	4
Elective[4]		3	-
		16	14

[1]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

[2]Recommended but not required by the major.

[3]Required by the major.

[4]Elective hours should be used to explore areas of interest and enhance career opportunities; or courses may be selected to satisfy Liberal Arts requirements (see College of Liberal Arts section).

Representative First Job Titles: Translator, Interpreter, Visitors' Guide, Communication Officer, International Students Coordinator, Public Information Officer, International Relations Officer Writer, Border Patrol, Publications Staff, Archival Worker, Community Planning & Redevelopment Officer, Legislative Aide, International Trade Economist, International Banking Specialist, Stock Broker, Job Analyst, Loan Administrator, Market Research Analyst, Inspector, Immigration & Naturalization Dept., Museum Curator, Community Relations Officer, Manufacturer's Representative.

LAW ENFORCEMENT
School of Technical Careers
(Associate in Art)

James Hendricks
Program Coordinator
Telephone - 618-536-6682
Faner B 4343

Law enforcement today demands a wide range of knowledge and ability to meet the complexities of modern society. This program is designed both for the individual entering the profession and for persons already serving in law enforcement who wish to upgrade their skills.

The student in this program will not be taught "police skills" that are taught in a police academy, such as firearms or personal defense. He or she will learn methods of crime control, criminal behavior, methods of crime detection, community problems in law enforcement, criminal law, and police administration. The student will develop an understanding of people and of interpersonal relationships.

The student will spend one term prior to graduation working under supervision with a police agency.

Police officers may enroll in the program on a part-time basis with the assurance that faculty members will help them to arrange classes compatibly with their duty schedules.

Full transfer of credit is guaranteed to students who have completed certificate programs in law enforcement at cooperating community colleges.

An advisory committee made up of persons active in law enforcement assists the program.

First Year		Fall	Spring
GSD 101	English Composition	3	-
CLE 103	Introduction to Criminal Justice	3	-
CLE 105	Criminal Behavior	3	-
GSB 202	Introduction to Psychology	3	-
CLE 115	Interpersonal Relations in Criminal Justice	3	-
GSD 118	Technical Report Writing	-	2
CLE 108	Supervision in Criminal Justice	-	3
GSB 203	Sociological Perspective	-	4
CLE 220	Probation, Parole and Community Based Corrections	-	3
GSD 153	Public Speaking	-	3
CLE 205	Criminal Investigation	-	3
		15	18

Second Year		Fall	Spring
CLE 209	Criminal Law I	3	-
GSB 212	Intro to American Government & Politics	4	-
CLE 221	Police Administration	3	-
Electives	(From GSA, GSC or GSE)	4	-
CLE 210	Criminal Law II	-	3
CLE 215	Internship in Criminal Justice Practice	-	9
Electives	(From GSA, GSC or GSE)	-	3
		14	15

A minimum of 62 hours is required for this program.

Representative First Job Titles: Police Officer, Detective, State Police Officer, Investigator, Guard, Crime Scene Technician.

LINGUISTICS
College of Liberal Arts
(Bachelor of Arts)

Dr. Patricia Carrell - Chairperson
Telephone - 618-536-3385
Faner Building, Room 3236

The objective of the undergraduate major in linguistics is to provide broad, general training in theoretical and applied linguistics. The major is designed to help the student achieve an awareness of the language systems of the past, an appreciation of modes of communication, and a fundamental understanding of the ever-changing linguistic environment in which he or she lives. Moreover, the analytical models of linguistics have been recognized since the 1930's by other disciplines (notably anthropology, psychology, and sociology) as significant research paradigms; education in linguistics methods trains a student to think analytically, to evaluate hypotheses, and to propose new solutions.

First Year		Fall	Spring
GSA	Science (select)[1]	-	3
GSB	Social Science (select)[1]	3	3
GSC	Humanities (select)[1]	3	-
FL	Foreign Language[2]	4	4
GSD 101 & 117, 118, or 119	English Composition and Writing (select)[1]	3	2
GSD	Math (select)[1]	-	4
GSE	Human Health & Well Being	2	-
		15	16

Second Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB	Social Science (select)[1]	3	-
GSC	Humanities (select)[1]	-	3
FL	Foreign Language Second Year[2]	4	4
GSD	Speech (select)[1]	-	2(3)
GSE	Human Health & Well Being (select)[1]	2	-
Electives[3]		3	-
Math or CS	Mathematics or Computer Science[4]	-	3
		15	16

[1]To determine what courses may be taken to satisfy the general education requirements for this program, see the section, General Studies for the Transfer Student.

[2]There is a foreign language requirement for native speakers of English: (1) one year of an uncommon or non-Western language, or (2) two years of any foreign language. If the language in (2) were uncommon or non-Western, satisfying (2) would automatically satisfy (1). Students planning graduate study in linguistics should take three years of foreign language study. Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GSC credit and four hours may be used to complete the thirty hours which are required from GSA, GSB, or GSC. If no foreign language is required, then the student may choose the GSC option instead.

[3]Elective hours should be used to explore areas of interest and to enhance career opportunities; or courses may be selected to fulfill Liberal Arts requirements (see College of Liberal Arts section).

[4]One of these courses may be used to partially fulfill the Liberal Arts requirement for students beginning college anywhere Fall 1978 or later.

Representative First Job Titles: Translator, Interpreter, Visitors' Guide, Communication Officer, International Students Coordinator, Public Information Officer, International Relations Officer, Writer, Border Patrol, Publications Staff, Archival Worker, Community Planning & Redevelopment Officer, Legislative Aide, International Trade Economist, International Banking Specialist, Stock Broker, Job Analyst, Loan Administrator, Market Research Analyst, Inspector, Immigration & Naturalization Dept., Museum Curator, Community Relations Officer, Manufacturer's Representative.

MARKETING
College of Business and Administration
(Bachelor of Science)

Dr. Glenn Walters, Chairperson
Telephone - 618-453-4341
General Classrooms Bldg., Room 229

Marketing consists of the performance of those activities associated with the flow of goods and services from producers to consumers and business users. The program is designed to provide the student with an understanding of the role of marketing in an economic system and in a business organization. Emphasis is upon the development of an analytical approach to the creative solution of marketing problems. Courses have been designed into a variety of sequences aimed at meeting the specific needs and the interests of students. These are: (1) General Marketing Administration, (2) International Marketing, (3) Industrial Marketing, (4) Sales Administration, (5) Promotional Administration, (6) Physical Distribution Administration, and (7) Retail Administration.

First Year		Fall	Spring
GSA	Science (select)[1]	3	6
*GSB 202	Introduction to Psychology	-	3
GSC	Humanities (select)[1]	6	3
GSD 101 & 117, 118 or 119	English Composition & Writing (select)[1]	3	2
*Math 116-5 or 139-3	Finite Mathematics and Algebra	3 (5)	-
*Math 117 or 140	Finite Mathematics and Calculus or Short Course in Calculus	-	4 (5)
		15 (17)	15 (16)

Second Year		Fall	Spring
*Acct 221, 222	Financial Managerial Accounting	3	3
*ADSC 208	Interpretation of Business Data	4	-
*CS 222 or EDP 217	Intro. to Computer Programming (PL1) or Computing for Business Admin. (FORTRAN)	-	3
*Econ 214, 215	Economics, Macro and Micro[2]	3	3
GSA	Science (select)[1]	3	-
*GSD 153 or 152	Public Speaking or Interpersonal Communication	3 (2)	-
GSE	Human Health and Well Being (select)[1]	-	2
GS- ---	General Studies Electives	-	4
		16 (15)	15

*Required course for a major in Marketing.

[1]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

[2]Econ 214 or 215 counts toward GSB credit.

Marketing As A Major

Neither minor nor foreign language required.
Graduate degree available: MBA, Masters in Accountancy.

It is strongly recommended that the courses listed above be completed prior to the junior year. Many of these courses are prerequisites to later requirements.

The Department is recognized by the American Assembly of Collegiate Schools of Business (AACSB).

Flexibility is available due to a limited number of required courses. Emphasis is on developing a program geared to individual students' interests and background.

Representative First Job Titles: Marketing Assistant, Retail Marketing Representative, Consumer Marketing Area or Territorial Manager, Commercial/Industrial Marketing Representative, Sales Representative Trainee, Marketing Trainee, Market Analyst, Management Trainee, Food Service Sales Representative, Bond Representative, Benefits Analyst, Budget Accountant, Budget Administrator, Business and Economics Statistician, Business Planner, Controller, Management Analyst, Manufacturer's Representative, Market Research Analyst, Sales Manager, Product Manager, Operations Research Analyst, Credit Manager, Customer Services Officer, Public Relations Officer.

MATHEMATICS[1]
College of Education
(Bachelor of Science)

Coordinator of Teacher Education Services
Telephone - 618-536-2329
Wham Building, Room 108

A standard college algebra and trigonometry course is available as one course or as separate courses to incoming freshmen to prepare them for a three semester sequence in calculus and analytic geometry. Most mathematics students will take an introductory linear algebra course while completing the calculus. Then they will select junior level courses from those in algebraic structures, analysis, number theory, geometry, differential equations, and probability.

First Year		Fall	Spring
GSA	Science (select)[2]	4	-
GSB 212, 300, or 301	American Government or U.S. History	-	4
GSC	Humanities (select)[2]	3	-
GSD 101	English Composition	3	-
GSD 117 or 118 or 119	Writing (select)[2]	-	2
GSE 201	Healthful Living	-	2
*Math 111	College Algebra and Trigonometry	5	-
Math 150	Calculus I	-	4
CS 202	Introduction to Computer Programming	-	3
		15	15

Second Year		Fall	Spring
GSA	Science (select)[2]	4	-
GSB	Social Studies (select)[2]	-	3
GSB 202	Introduction to Psychology	3	-
GSC	English elective in Humanities (select)[2]	-	3
GSC	Humanities (select)[2]	3	-
GSD 153	Public Speaking	-	2
GSE	Human Health and Well Being--activity	1	-
Math 250	Calculus II	4	-
Math 221	Introduction to Linear Algebra	-	3
Math 319	Introduction to Abstract Algebra	-	3
Math 319E	Modern Algebra Applied to Secondary Schools	-	1
Ed 201	Teacher's Role in Public School Education	1	-
		16	15

*Approved substitute for GSD Math.

[1]See also the program under the College of Liberal Arts. The College of Science also offers a B.S. in Mathematics.

[2]Refer to the section General Studies for the Transfer Student.

Mathematics As A Major

Foreign language is not required for the Bachelor of Science degree in Education.

It is recommended that the following courses be completed during the first two years of the student's study: Math 111, 150, 250, 251, 221, Computer Science 202.

For specific major requirements see the Undergraduate Catalog.

To include the following required courses: GSB 202, Introduction to Psychology; GSB 212, Introduction to American Government and Politics OR GSB 300 or 301; History of the United States; GSD 101, English Composition; GSD 117, 118, 119, Expository, Technical, or Creative Writing; GSD 153, Public Speaking; GSE 100-114 (2 hours), Physical Education Activities; GSE 201, Healthful Living; One additional English course (GSC, GSD, or departmental); Math 111, College Algebra and Trigonometry.

MATHEMATICS*

College of Liberal Arts
(Bachelor of Arts)

Dr. Al Baartmans - Chairperson
Telephone - 618-453-5302
Neckers Building, Room 363

A standard college algebra and trigonometry course is available as one course or as separate courses to incoming freshmen to prepare them for a three semester sequence in calculus and analytic geometry. Most mathematics students will take an introductory linear algebra course while completing the calculus. Then they will select junior level courses from those in algebraic structures, analysis, number theory, geometry, differential equations, and probability.

First Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB	Social Science (select)[1]	3	3
GSC	Humanities (select)[1]	-	3
GSD 101 & 117, 118 or 119	English Composition and Writing (select)[1]	3	2
Math 111	College Algebra and Trigonometry[2]	5	-
Math 150	Calculus I[3]	-	4
		14	15

Second Year		Fall	Spring
GSA	Science (select)[1]	3	-
GSB	Social Science (select)[1]	-	3
GSD	Speech (select)[1]	2(3)	-
GSE	Human Health and Well Being (select)[1]	-	2
Math 250	Calculus II[3]	4	-
Math 251	Calculus III[3]	-	3
Math 221	Introduction to Linear Algebra[3]	-	3
CS 202	Introduction to Computer Programming[3]	3	-
FL	Foreign Language[4]	4	4
		16(17)	15

*See also the program (B.S.) under the College of Education. The College of Science also offers a B.S. in mathematics.

[1]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

[2]Proficiency exams can be taken in this course. Math 111 is a substitute for GSD Math.

[3]Required by major.

[4]Math majors must complete eight semester hours of one foreign language. Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GSC credit and four hours may be used to complete the thirty hours which are required from GSA, GSB, or GSC.

Mathematics As A Major

Students majoring in mathematics through the College of Liberal Arts must satisfy College requirements (see College of Liberal Arts section). Students must earn a grade of "C" or higher in mathematics courses numbered 150 or above.

The Department of Mathematics has graduate programs at both the Masters' and Doctors' levels.

Graduates of this program find employment in various organizations which rely on the use of mathematical principle and procedures in phases of their operation or they often take teaching positions. Many industries that hire mathematicians are engineering or science oriented such as aircraft and missile, chemical, electrical equipment, fabricated metals, and petroleum industries, but also employers are hiring mathematicians in business and economic related positions to help with managerial decisions. Excellent career opportunities exist in statistical and actuarial work launched from undergraduate mathematics programs, and mathematics graduates are highly valued in MBA (Master of Business Administration) programs.

Honors work available.

Representative First Job Titles: Junior Systems Analyst, Actuary (or Actuarial Assistant), Cryptographer, Mathematician, Operations Research Analyst, Statistician, Biometrician, Demographer, Contract Administrator, Inventory Controller, Investment Analyst, Wage-Salary Administrator, Computing Analyst, Cyberneticist, Information Scientist, Accounting Trainee, Research Mathematician, Mathematical Programmer, Methods Analyst, Technical Sales Representative, Market Analyst.

MICROBIOLOGY
College of Science
(Bachelor of Arts)

Dr. Dan McClary,
Acting Dept. Executive Officer
Telephone-618-536-2349
Life Science II, Room 131

Microbiology deals with the study of micro-organisms, including bacteria, viruses, rickettsiae, protozoa, fungi, and yeasts, examining their morphology, classification, growth, reproduction, heredity, biochemistry, ecology, and their relationship to other living organisms including man. The following program of study prepares one for graduate study leading to advanced degrees or for laboratory or teaching positions after the bachelor's degree.

Opportunities for specialized training in diagnostic bacteriology, virology, immunology, genetics, biochemistry and industrial processes are available.

First Year		Fall	Spring
FL	Foreign Language[1,3]	4	4
Chem 222a,b	Introduction to Chemical Principles[1,3]	4	4
Math 110a,b or	College Algebra and Trigonometry[3]	3	2
Math 111		(5)	(-)
Micr 301	Principles of Microbiology[3]	-	4
GSD 101	English Composition	3	-
GSD 118	Technical Report Writing	-	2
		14 (16)	16 (14)

Second Year		Fall	Spring
Micr 302	General Microbiology[3]	-	3
Biol	Biology (select)[1,2,3]	3	3
Chem 344, 345, and 346, 347	Organic Chemistry and Lab	6	5
Phys 203a,b and 253a,b	College Physics and Lab	4	4
GSE	Human Health and Well Being (select)	2	1
		15	16

[1]Approved substitutes for General Studies.

[2]Any two of Biology 305, 306, 307, 308, 309.

[3]Students in the College of Science must take one year of foreign language, one year of math, 6 semester hours of physical sciences, and 6 semester hours of biological sciences.

Third and Fourth Years

The student fulfills remaining General Studies requirements, and chooses electives in microbiology to match his or her professional interests.

Microbiology As A Major

A student may direct his or her career toward such fields as: (1) the clinical and public health laboratory; (2) the food and beverage industries; (3) pharmaceutical industries involving the discovery and production of antibiotics and other therapeutic drugs, the discovery and production of vaccines, possibly effective even against cancer; (4) the soap and detergent industries; (5) agriculture by enriching and maintaining the fertility of the soil and by controlling diseases which ravage our cultivated crops and livestock. Excellent teaching opportunities exist at the university level for the holder of the doctor's degree. A microbiologist planning a teaching career at the secondary school level should acquire a broad background in general biology. In addition to the academic career, high-salaried positions are to be found in many of the local, state, and federal agencies, as well as in industry, by the microbiologist with a good capacity for pure or applied research.

Graduate programs available.

Representative First Job Titles: Microbiologist, Medical Bacteriologist, Soil Microbiologist, Food Bacteriologist, Medical Laboratory Assistant, Technical Maintenance Personnel, Microbiostatistician, Embryologist, Genetics Research Technician, Serologist, Histologist, Cytologist, Parasitologist, Virologist, Microbiology Researcher, Wine Chemist, Fishery Bacteriologist, Quality Control Specialist, Entomologist, Biological Photography Staff, Manufacturer's Representative.

MORTUARY SCIENCE AND FUNERAL SERVICES
School of Technical Careers
(Associate in Art)

Don Hertz
Program Coordinator
Telephone - 618-536-6682
STC - Building, Room 18C

Licensing and qualification requirements vary from state to state since laws governing the profession are enacted at a state level. Licensure in one state does not assume automatic qualification in another but most state boards have some reciprocal agreements with other states.

First Year		Fall	Spring
GSA 115	Biology	3	-
GSB 202	Introduction to Psychology	3	-
GSD 101	English Composition	3	-
GSD 153	Public Speaking	-	3
Acct 110	Applied Accounting	-	3
Scr 208	Applied Law	-	3
GSD 117,118 or 119 or STC 102	Expository, Technical Report, or Creative Writing or Technical Writing	-	3 (2)
MS 101	Orientation to Funeral Service	3	-
MS 102	Restorative Art	4	-
MS 108	Funeral Service Psychology	-	3
Elective	Health Education	-	2
		16	17 (16)

Second Year		Fall	Spring
MS 255	Embalming Chemistry	5	-
MS 225a,b	Embalming Theory and Practice	4	4
MS 230	Mortuary Anatomy	4	-
MS 250a,b	Mortuary Management	4	4
MS 256	Introductory Microbiology	-	4
MS 257	Pathology	-	4
		17	16

		Summer
MS 375a	Internship--Management	5
MS 375b	Internship--Embalming	5
MS 380	Funeral Service	2
		12

Mortuary Science As A Major

The Illinois statute governing the practice of funeral directing and embalming indicates the following requirements for those individuals who would secure the funeral director's and embalmer's licenses:

1. A candidate must be at least twenty-one years of age, a citizen of the United States and a resident of the state of Illinois; and be of good moral character and temperate habits.

2. He or she must successfully complete one academic year in a college or university approved and recognized by the Illinois Department of Registration and Education in addition to successfully completing a course of instruction of at least one year duration in a professional school or college teaching the practice of funeral directing and embalming.

3. He or she must study funeral directing or embalming in the state of Illinois under a funeral director or embalmer licensed by the state for a combined period of one year as a registered trainee.

4. A candidate must successfully pass licensure examinations administered by the State Board of Examiners in Funeral Directing and Embalming.

Successful completion of the program meets the education requirements in Illinois and many other states.

Prospective students should contact the licensing body of the state in which they decide to attempt licensure.

Representative First Job Titles: Funeral Director Trainee, Embalmer Trainee.

MUSIC[1]
College of Communications and Fine Arts
(Bachelor of Arts)

Mr. Phillip Olsson, Director
Telephone - 618-453-2263
Altgeld Hall, Room 105

The bachelor of arts program is designed to provide a basis for various part time and musically related careers such as church music, music therapy, popular music, private applied teaching, and occupations within the field of music industry and communications. Ordinarily, additional study, comparable to the Bachelor of Music curriculums offered in the College of Communications and Fine Arts, is necessary to qualify for a full time professional career in teaching, conducting, composition, or research.

This music major degree program is established in accordance with the published regulations of the National Association of Schools of Music, of which the School of Music is a member.

First Year		Fall	Spring
GSA	Science (select)[2]	3	3
GSB	Social Studies (select)[2]	3	3
GSC	Humanities (select)[2]	-	3
GSD 101, 117	English Composition; Expository Writing	3	2
GSD 107	Algebra	4	-
GSE	Human Health and Well Being (select)[2]	1	1
*Mus 102	Survey of Music Literature	-	2
*Mus 140	Applied Music (principal instrument)	2	2
*Mus	Major Ensemble (see below)	1	1
		17	17

Second Year		Fall	Spring
GSA	Science (select)[2]	3	-
GSB	Social Studies (select)[2]	-	3
GSD 152	Interpersonal Communication	-	2
GSE	Human Health and Well Being (select)[2]	1	1
GSC	Humanities (select)[2]	3	3
*Mus 104a,b	Aural Skills	1	1
*Mus 105a,b	Basic Harmony	3	3
*Mus 240	Applied Music (principal instrument)	2	2
*Mus	Major Ensemble (see below)	1	1
		14	16

*Required courses for a major in Music.

[1]See also music education program in the College of Education.

[2]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student. Music 102-2 and 105a-3 substitute for GSC 100-2 and 206-3.

Third and Fourth Years

After completion of the first year core, each student's program is planned according to individual needs and goals. The Bachelor of Arts in music requires a total of 40 semester hours of music courses.

Music as a Major

Credits in one's principal applied field are based on (1) private lessons with a number of the faculty, (2) weekly participations in Studio hour (Mondays at 10:00 a.m.), and (3) recorded attendance each term at seven campus recitals or concerts, approved for the purpose by the School of Music faculty, in which the student is not a participant.

All freshmen and sophomores pursuing a baccalaureate degree program in music must maintain satisfactory membership each term in residence, in one of the following: Music 011 Marching Salukis, Music 013 Symphonic Band, 014 Concert Wind Ensemble, 017 Symphony, 020 University Chorus, 021 SIU Chorale, or 022 University Choir.

Representative First Job Titles: Church Organist, Folk Music Specialist, Assistant to Music Director, Popular Music Specialist, Dance Band Musician.

MUSIC[1]
(Instrumental Performance)
College of Communications and Fine Arts
(Bachelor of Music)

Mr. Phillip Olsson, Director
Telephone - 618-453-2263
Altgeld Hall, Room 105

The School of Music offers programs to prepare students for careers in musical performance, conducting, composition, teaching, research, and related areas in the music industry. It is assumed that students planning one of these careers will have had extensive pre-university experience in performing with school groups and/or as soloist, basic music reading ability, strong sensitivity to music, and a desire to communicate it to others.

The following illustrates the course of study to be followed during the first two years by those intending to pursue a career as an instrumentalist and/or private applied teacher. One wishing to attempt this specialization should, before the sophomore year, secure approval by the appropriate applied jury, and thereafter enrolls for and receives two half-hour lessons per week for 4 credits per term in applied music.

First Year		Fall	Spring
GSA	Science (select)[2]	-	3
GSC	Humanities (select)[2]	-	2
GSD 101, 117	English Composition; Expository Writing	3	2
GSE	Human Health and Well Being (select)[2]	2	-
*Mus 140	Applied Music (principal instrument)	2	2
*Mus 030a,b	Piano Class[3]	1	1
*Mus	Major Ensemble (see below)	1	1
*Mus 102	Survey of Music Literature	2	-
*Mus 104a,b	Aural Skills	1	1
*Mus 105a,b	Basic Harmony	3	3
		15	15

Second Year		Fall	Spring
GSA	Science (select)[2]	-	3
GSB	Social Sciences (select)[2]	-	3
GSD 107	Intermediate Algebra	4	-
GSE	Human Health and Well Being (select)[2]	1	1
*Mus 240	Applied Music (principal instrument)	4	4
*Mus 030c,d	Class Piano[3]	1	1
*Mus	Major Ensemble (see below)	1	1
*Mus 204	Advanced Aural Skills	1	-
*Mus 205	Advanced Harmony	3	-
*Mus 207	Contrapuntal Techniques	-	2
		15	15

*Required courses for a major in Music. Students who intend to transfer with an associate's degree from a community college should contact the Director of the School of Music well in advance to determine comparability of Music classes and to avoid spending additional time completing the bachelor's degree.

[1]Also available in the College of Education

[2]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student. Music 102-2 and 105a-3 count toward GSC requirements.

[3]Students with piano background may waive part or all of the piano class requirement, as justified by a proficiency examination.

All freshmen and sophomores pursuing a baccalaureate degree program in music must maintain satisfactory membership each term in residence, in one of the following: Music 011-Marching Salukis, Music 013-Symphonic Band, 014-Concert Wind Ensemble, 017-Sumphony, 020-University Chorus, 021-SIU Chorale, or 022-University Choir.

Representative First Job Titles: Popular Music Specialist, Classical Music Specialist, Dance Band Player, Symphony Orchestra Artist, Rock Group Artist, Jazz Group Artist, Solo Performer, Music Marketing Specialist, Television Artist, Opera Artist, Folk Music Specialist, Composition Writer, Music Conductor, Instrumental Conductor, Instrumental Soloist, Choral Group Artist, Strings Instruments Specialist, Brass Instruments Specialist, Woodwinds Instruments Specialist, Assistant to Music Director, Church Organist, Music Librarian, Music Therapist, Rhythm Instruments Specialist.

MUSIC[1]
(Keyboard Performance)
College of Communications and
Fine Arts
(Bachelor of Music)

Mr. Phillip Olsson, Director
Telephone - 618-453-2263
Altgeld Hall, Room 105

The School of Music offers programs to prepare students for careers in musical performance, conducting, composition, teaching, research, and related areas in the music industry. It is assumed that students planning one of these careers will have had extensive pre-university experience in performing with school groups and/or as soloist, basic music reading ability, strong sensitivity to music, and a desire to communicate it to others.

The following illustrates the course of study to be followed during the first two years by those intending to pursue a career as a keyboard performer and/or private applied teacher. One wishing to attempt this specialization should, before the sophomore year, secure approval by the appropriate applied jury, and thereafter enrolls for and receives two half-hour lessons per week for 4 credits per term in applied music.

First Year		Fall	Spring
GSA	Science (select)[2]	3	3
GSB	Social Studies (select)[2]	-	3
GSD 101, 117	English Composition; Expository Writing	3	2
*Mus 140	Applied Music (principal instrument)	2	2
*Mus	Major Ensemble (see below)	1	1
*Mus 102	Survey of Music Literature	2	-
*Mus 104a,b	Aural Skills	1	1
*Mus 105a,b	Basic Harmony	3	3
		15	15

Second Year		Fall	Spring
GSA	Science (select)[2]	3	-
GSC	Humanities (select)[2]	-	3
GSD 152	Interpersonal Communication	2	-
GSD 107	Intermediate Algebra	-	4
GSE	Human Health and Well Being (select)[2]	1	1
*Mus 240	Applied Music (principal instrument)	4	4
*Mus	Major Ensemble (see below)	1	1
*Mus 204	Advanced Aural Skills	1	-
*Mus 205	Advanced Harmony	3	-
*Mus 207	Contrapuntal Techniques	-	2
		15	15

*Required courses for a major in Music. Students who intend to transfer with an associate's degree from a community college should contact the Director of the School of Music well in advance to determine comparability of music classes and to avoid spending additional time completing the bachelor's degree.

[1]Music curriculums are also available in the College of Education and the College of Liberal Arts.

[2]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student. Mus ic 102-2 and 105a-3 count toward GSC requirements.

Music As A Major

Credits in one's principal applied field are based on (1) private lessons with a member of the faculty, (2) weekly participation in Studio Hour (Mondays at 10:00 a.m.), and (3) recorded attendance each term at seven campus recitals or concerts, approved for the purpose by the School of Music faculty, in which the student is not a participant.

All freshmen and sophomores pursuing a baccalaureate degree program in music must maintain satisfactory membership each term in residence, in one of the following: Music 011-Marching Salukis, Music 013-Symphonic Band, 014-Concert Wind Ensemble, 017-Symphony, 020-University Chorus, 021-SIU Chorale, or 022-University Choir.

Representative First Job Titles: Popular Music Specialist, Classical Music Specialist, Dance Band Player, Symphony Orchestra Artist, Rock Group Artist, Jazz Group Artist, Solo Performer, Music Marketing Specialist, Television Artist, Opera Artist, Folk Music Specialist, Composition Writer, Music Conductor, Instrumental Conductor, Instrumental Soloist, Choral Group Artist, Strings Instruments Specialist, Woodwinds Instruments Specialist, Assistant to Music Director, Church Organist, Music Librarian, Music Therapist, Rhythm Instruments Specialist.

MUSIC
(Music Business)
College of Communications and Fine Arts
(Bachelor of Music)

Mr. Phillip Olsson, Director
Telephone - 618-453-2263
Altgeld Hall, Room 105

One of the newer options in the School of Music is the Music Business specialization. This program is designed for students planning careers in business and aspects of the music profession other than performance, education, composition, or history-literature. Beginning with the second year, students take courses not only in music but also in accounting, administrative sciences, economics, finance, and marketing.

First Year		Fall	Spring
ECON 215	Introduction to Microeconomics[1]	-	3
GSD 101, 117	English Composition, Expository Writing	3	2
GSD	Mathematics (select)[2]	-	4
GSE	Human Health and Well Being (select)[2]	2	1
GSA 101	Conceptual Insights into Modern Communications Systems[3]	3	-
MUS	Major Ensemble[4]	1	1
MUS 040-240	Applied Music (principal instrument)[4]	1	1
MUS 102	Survey of Music Literature[1,4]	2	1
MUS 104 a,b	Aural Skills[4]	1	1
MUS 105 a,b	Basic Harmony[1,4]	3	3
		16	16

Second Year		Fall	Spring
GSD	Speech (select)[2]	-	2 (3)
GSA 361	Acoustics of Music[4]	3	-
ACCT 221, 222	Principles of Accounting I,II[4]	3	3
MUS 030	Piano Class[4]	1	1
MUS 040-240	Applied Music (Principal Instrument)	1	1
MUS 031	Voice Class	1	-
GSE	Human Health and Well Being (select)[2]	-	1
MUS	Major Ensemble[4]	1	1
GSA	Science (select)[2]	3	-
GSC	Humanities (select)[2]	3	3
GSB	Social Science (select)[2]	-	3
		16	15 (16)

[1]Approved substitutes for General Studies.

[2]See Section on General Studies for transfer students.

[3]Recommended but not required by major.

[4]Required by Music Major, music business specialization. Students who plan to transfer from community colleges with an associate's degree should complete comparable music courses in order to avoid spending extra time pursuing the bachelor's degree.

Music As A Major

Credits in one's principal applied field are based on (1) private lessions with a number of the faculty, (2) weekly participations in Studio hour (Mondays at 10:00 a.m.), and (3) recorded attendance each term at seven campus recitals or concerts, approved for the purpose by the School of Music faculty, in which the student is not a participant.

All freshmen and sophomores pursuing a baccalaureate degree program in music must maintain satisfactory membership each term in residence, in one of the following: Music 011 Marching Salukis, Music 013 Symphonic Band, 014 Concert Wind Ensemble, 017 Symphony, 020 University Chorus, 021 SIU Chorale, or 022 University Choir.

Representative First Job Titles: Music Marketing Specialist, Audio-Marketing, Management Trainee for Recording Studio, Fund Raiser for Opera Company, Instrument Sales, Dulcimer Manufacturer.

MUSIC[1]
(Music History-Literature)
College of Communications and
Fine Arts
(Bachelor of Music)

Mr. Phillip Olsson, Director
Telephone - 618-453-2263
Altgeld Hall, Room 105

The School of Music offers programs to prepare students for careers in musical performance, conducting, composition, teaching, research, and related areas in the music industry. It is assumed that students planning one of these careers will have had extensive pre-university experience in performing with school groups and/or as soloist, basic music reading ability, strong sensitivity to music, and a desire to communicate it to others.

The following illustrates the course of study to be followed during the first two years by those intending to pursue a career in musical research and criticism and/or college teaching in these areas.

First Year		Fall	Spring
GSB	Social Studies (select)[2]	-	3
GSD 101,	English Composition	3	-
GSD 107	Intermediate Algebra	-	4
GSE	Health and Physical Development (select)[2]	2	-
*Mus 140	Applied Music (principal instrument)	2	2
*Mus 030a,b	Class Piano[3]	1	1
*Mus	Major Ensemble (see below)	1	1
*Mus 102	Survey of Music Literature	2	-
*Mus 104a,b	Aural Skills	1	1
*Mus 105a,b	Basic Harmony	3	3
		15	15

Second Year		Fall	Spring
GSC 152	Interpersonal Communication	-	2
GSD 117	Expository Writing	2	-
GSE	Human Health and Well Being (select)[2]	1	-
*For Lang	French or German	4	4
*Mus 240	Applied Music (principal instrument)	2	2
*Mus	Major Ensemble (see below)	1	1
*Mus 204	Advanced Aural Skills	1	-
*Mus 205	Advanced Harmony	3	-
*Mus 207	Contrapuntal Techniques	-	2
*Mus 357a or b	Music History	-	3
		15	15

*Required courses for a major in Music. Students who intend to transfer with an associate's degree from a community college should contact the Director of the School of Music well in advance to determine comparability of music classes and to avoid spending additional time completing the bachelor's degree.

[1]Music curriculums are also available in the College of Education and the College of Liberal Arts.

[2]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student. Mus ic 102-2, 105a-3 and the second semester of foreign language count toward GSC requirements.

[3]Students with piano background may waive part or all of the piano class requirement, as justified by a proficiency examination.

Music As A Major

Credits in one's principal applied field are based on (1) private lessons with a member of the faculty, (2) weekly participation in Studio Hour (Mondays at 10:00 a.m.), and (3) recorded attendance each term at seven campus recitals or concerts, approved for the purpose by the School of Music faculty, in which the student is not a participant.

All freshmen and sophomores pursuing a baccalaureate degree program in music must maintain satisfactory membership each term in residence, in one of the following: Music 011-Marching Salukis, Music 013-Symphonic Band, 014-Concert Wind Ensemble, 017-Symphony, 020-University Chorus, 021-SIU Chorale, or 022-University Choir.

Representative First Job Titles: Popular Music Specialist, Classical Music Specialist, Dance Band Player, Symphony Orchestra Artist, Rock Group Artist, Jazz Group Artist, Solo Performer, Music Marketing Specialist, Television Artist, Opera Artist, Folk Music Specialist, Composition Writer, Music Conductor, Instrumental Conductor, Instrumental Soloist, Choral Group Artist, Strings Instruments Specialist, Brass Instruments Specialist, Woodwinds Instruments Specialist, Assistant to Music Director, Church Organist, Music Librarian, Music Therapist, Rhythm Instruments Specialist.

MUSIC[1]
(Music Theory-Composition)
College of Communications and Fine Arts
(Bachelor of Music)

Mr. Phillip Olsson, Director
Telephone - 618-453-2263
Altgeld Hall, Room 105

The School of Music offers programs to prepare students for careers in musical performance, conducting, composition, teaching, research, and related areas in the music industry. It is assumed that students planning one of these careers will have had extensive pre-university experience in performing with school groups and/or as soloist, basic music reading ability, strong sensitivity to music, and a desire to communicate it to others.

The following illustrates the course of study to be followed during the first two years by those intending to pursue a career as a musical composer and/or college teacher of music theory-composition.

First Year		Fall	Spring
GSA	Science (select)[2]	-	3
GSC	Humanities (select)[2]	-	2
GSD 101, 117	English Composition; Expository Writing	3	2
GSE	Human Health and Well Being (select)[2]	2	-
*Mus 140	Applied Music (principal instrument)	2	2
*Mus 030a,b	Class Piano[3]	1	1
*Mus	Major Ensemble (see below)	1	1
*Mus 102	Survey of Music Literature	2	-
*Mus 104a,b	Aural Skills	1	1
*Mus 105a,b	Basic Harmony	3	3
		15	15

Second Year		Fall	Spring
GSA	Science (select)[2]	-	3
GSC	Humanities (select)[2]	-	3
GSD 107	Intermediate Algebra	4	-
GSE	Human Health and Well Being (select)[2]	1	1
*Mus 240	Applied Music (principal instrument)	2	2
*Mus 030c,d	Class Piano[3]	1	1
*Mus 204	Advanced Aural Skills	1	-
*Mus 205	Advanced Harmony	3	-
*Mus 207	Contrapuntal Techniques	-	2
*Mus 280	Beginning Composition	2	2
		15	15

*Required courses for a major in Music. Students who intend to transfer with an associate's degree from a community college should contact the Director of the School of Music well in advance to determine comparability of classes and to avoid spending additional time completing the bachelor's degree.

[1]Also available in the College of Education.

[2]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

[3]Students with piano background may waive part or all of the piano class requirement, as justified by a proficiency examination.

Music As A Major

Credits in one's principal applied field are based on (1) private lessons with a member of the faculty, (2) weekly participation in Studio Hour (Mondays at 10:00 a.m.), and (3) recorded attendance each term at seven campus recitals or concerts, approved for the purpose by the School of Music faculty, in which the student is not a participant.

All freshmen and sophomores pursuing a baccalaureate degree program in music must maintain satisfactory membership each term in residence, in one of the following: Music 011-Marching Salukis, Music 013-Symphonic Band, 014-Concert Wind Ensemble, 017-Symphony, 020-University Chorus, 021-SIU Chorale, or 022-University Choir.

Representative First Job Titles: Popular Music Specialist, Classical Music Specialist, Dance Band Player, Symphony Orchestra Artist, Rock Group Artist, Jazz Group Artist, Solo Performer, Music Marketing Specialist, Television Artist, Opera Artist, Folk Music Specialist, Composition Writer, Music Conductor, Instrumental Conductor, Instrumental Soloist, Choral Group Artist, Strings Instruments Specialist, Brass Instruments Specialist, Woodwinds Instruments Specialist, Assistant to Music Director, Church Organist, Music Librarian, Music Therapist, Rhythm Instruments Specialist.

MUSIC[1]
(Vocal Performance)
College of Communications and Fine Arts
(Bachelor of Music)

Mr. Phillip Olsson, Director
Telephone - 618-453-2263
Altgeld Hall, Room 105

The School of Music offers programs to prepare students for careers in musical performance, conducting, composition, teaching, research, and related areas in the music industry. It is assumed that students planning one of these careers will have had extensive pre-university experience in performing with school groups and/or as soloist, basic music reading ability, strong sensitivity to music, and a desire to communicate it to others.

The following illustrates the course of study to be followed during the first two years by those intending to pursue a career as a singer and/or private applied teacher. One wishing to attempt this specialization should, before the sophomore year, secure approval by the appropriate applied jury, and thereafter enrolls for and receives two half-hour lessons per week for 4 credits per term in applied music.

First Year		Fall	Spring
GSD 101, 117	English Composition; Expository Writing	3	2
GSD 107	Intermediate Algebra	-	4
GSE	Human Health and Well Being (select)[2]	2	1
*Mus 140P	Applied Music (voice)	2	2
*Mus 030a,b	Class Piano[3]	1	1
*Mus	Major Ensemble (see below)	1	1
*Mus 102	Survey of Music Literature	2	-
*Mus 104a,b	Aural Skills	1	1
*Mus 105a,b	Basic Harmony	3	3
		15	15

Second Year		Fall	Spring
GSA	Science (select)[2]	-	3
GSE	Human Health and Well Being (select)[2]	1	-
*For Lang	French or German	4	4
*Mus 240P	Applied Music (voice)	4	4
*Mus 030c,d	Class Piano[3]	1	1
*Mus	Major Ensemble (see below)	1	1
*Mus 204	Advanced Aural Skills	1	-
*Mus 205	Advanced Harmony	3	-
*Mus 207	Contrapuntal Techniques	-	2
		15	15

*Required courses for a major in Music. Students who intend to transfer with an associate's degree from a community college should contact the Director of the School of Music well in advance to determine comparability of music classes and to avoid spending additional time completing the bachelor's degree.

[1]Also available in the College of Education.

[2]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student. Mu sic 102-2, 105a-3 and the second semester of foreign language count toward GSC requirements.

[3]Students with piano background may waive part or all of the piano class requirement, as justified by a proficiency examination.

Music As A Major

Credits in one's principal applied field are based on (1) private lessons with a member of the faculty, (2) weekly participation in Studio Hour (Mondays at 10:00 a.m.), and (3) recorded attendance each term at seven campus recitals or concerts, approved for the purpose by the School of Music faculty, in which the student is not a participant.

All freshmen and sophomores pursuing a baccalaureate degree program in music must maintain satisfactory membership each term in residence, in one of the following: Music 011-Marching Salukis, Music 013-Symphonic Band, 014-Concert Wind Ensemble, 017-Symphony, 020-University Chorus, 021-SIU Chorale, or 022-University Choir.

Representative First Job Titles: Popular Music Specialist, Classical Music Specialist, Dance Band Player, Symphony Orchestra Artist, Rock Group Artist, Jazz Group Artist, Solo Performer, Music Marketing Specialist, Television Artist, Opera Artist, Folk Music Specialist, Composition Writer, Music Conductor, Instrumental Conductor, Instrumental Soloist, Choral Group Artist, Strings Instruments Specialist, Brass Instruments Specialist, Woodwinds Instruments Specialist, Assistant to Music Director, Church Organist, Music Librarian, Music Therapist, Rhythm Instruments Specialist.

MUSIC EDUCATION[1]
(Music Education - Instrumental or Choral)
College of Education
(Bachelor of Science)
College of Communications and Fine Arts
(Bachelor of Music)

Dr. Phillip Olsson, Director
School of Music Telephone - 618-453-2263
Altgeld Hall, Room 105

Coordinator of Teacher Education Services
Telephone - 618-536-2239
Wham Building, Room 108

The School of Music offers programs to prepare students for careers in musical performance, conducting, composition, teaching, research, and related areas in the music industry. It is assumed that students planning one of these careers will have had extensive pre-university experience in performing with school groups and/or as soloist, basic music reading ability, strong sensitivity to music, and a desire to communicate it to others.

First Year		Fall	Spring
GSB	Social Science (select)[2]	-	3
GSA	Science (select)[1]	3	3
GSD 101 and 117, 118 or 119	English Composition and Writing	3	2
GSE 201	Healthful Living	2	-
*Mus 140	Applied Music (principal instrument)	2	2
*Mus 030a,b	Piano Class[3]	1	1
*Mus	Major Ensemble (see below)	1	1
*Mus 104a,b	Aural Skills	1	1
*Mus 105a,b	Basic Harmony	3	3
*Mus 102	Survey of Music Literature	-	2
		16	15

Second Year		Fall	Spring
GSC	Humanities (select)[2]	3	-
GSC	English elective in Humanities	-	3
GSA 361	Acoustics of Music	3	-
GSB 212, 300 or 301	American Government or U.S. History	4	-
GSB 202	Introduction to Psychology	-	3
GSD 107	Intermediate Algebra	-	4
GSD	Speech	-	2 (3)
GSE	Human Health and Well Being - Activity	2	-
*Mus 240	Applied Music (principal instrument)	2	2
*Mus	Major Ensemble (see below)	1	1
*Mus 204	Advanced Aural Skills	1	-
*Mus 034, 035	Brass Class; WW Class (for Instrumental Music)	1	2
or Mus 030a,b	Piano Class[3] (for choral Music Education)	(1)	(1)
		17 (18)	17 (18)

*Required courses for a major in Music. Students who intend to transfer with an associate's degree from a community college should contact the Director of Music well in advance to determine the comparability of music classes and to avoid spending additional time completing the bachelor's degree.

[1]Music curriculums are also available in the College of Communications and Fine Arts and the College of Liberal Arts.

[2]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

[3]Students with piano background may waive part or all of the piano class requirement, as justified by a proficiency examination.

The following courses are required for Teacher Certification: GSB 202, Introduction to Psychology; GSB 212 or GSB 300 or 301; GSD 101; GSD 117 or 118 or 119; GSD Speech; GSE 100-114 (2 hours); GSE 201; plus one additional English course from GSC, GSD or departmental.

Music As A Major

Students interested in this specialization should become aware of the requirements for entering the Teacher Education Program (explained in another section of this text).

All freshmen and sophomores pursuing a baccalaureate degree program in music must maintain satisfactory membership each term in residence, in one of the following: Music 011, Marching Salukis; Music 013, Symphonic Band; 014, Concert Wind Ensemble; 017, Symphony; 020, University Chorus; 021, SIU Chorale; or 022, University Choir.

OCCUPATIONAL EDUCATION
(Occupational Teaching)
(Pre-Occupational Teaching0
(Secondary School Occupational Teaching)
College of Education
(Bachelor of Science)

Coordinator of Teacher Education Services
Telephone - 618-536-2329
Wham Building, Room 108

Dr. James Sullivan, Chairperson
Vocational Education Studies
Telephone - 618-453-3321
Wham Building, Room 146

The Department of Occupational Education offers three majors, each leading to the Bachelor of Science in Education degree. Programs include specializations in pre-occupational teaching, secondary occupational teaching and occupational teaching. The specializations in pre-occupational teaching and secondary occupational teaching lead to entitlement to a Standard High School Teaching Certificate.

First Year		Fall	Spring
GSA 101	Physics in the Environment	3	-
GSA 106	Chemistry for Non-Science Majors	-	3
GSB 212	Intro. to American Government and Politics	4	-
GSB 202	Introduction to Psychology	-	3
GSC 102	Problems in Philosophy	-	3
GSC	Humanities (not English or Philosophy) (select)[1]	3	-
GSD 101	English Composition	3	-
GSD 117, 118 or 119	Writing (select)[1]	-	2
GSE 201	Healthful Living	-	2
GSE	Human Health and Well Being - Activity	1	-
ED 201	Teacher's Role in Public School Education	-	1
		14	14

Second Year		Fall	Spring
GSA	Science (select)[1]	3	-
GSB	Social Studies (select)[1]	3	-
GSC	English in Humanities (select)[1]	3	-
GSD	Mathematics (select)[1]	-	4
GSD 153	Public Speaking	3	-
GSE	Human Health and Well Being - Activity	1	-
VES 360A,B	Vocational, Occupational & Career Simulation Cluster Studies	3	3
VES 362	Vocational, Occupational & Career Orientation & Exploration	-	3
Elective		-	4
		17	14

[1]Refer to the section General Studies for the Transfer Student.

Refer to the Undergraduate Catalog for specific major requirements.

Special Note to Community College Personnel: The programs in occupational teaching and secondary school occupational teaching require the equivalent of an associate degree in a technical specialty for admission. Therefore, the two-year recommended program above applies only to the pre-occupational teaching specialty.

Occupational Education As A Major

To include the following required courses: GSB 202, Introduction to Psychology; GSB 212, Introduction to American Government and Politics, or GSB 300 or 301, History of the United States; GSD 101, English Compositin; GSD 117, 118 or 119, Expository, Technical or Creative Writing; GSD 153, Public Communication; GSE 100-114 (2 hours), Physical Education Activities; GSE 201, Healthful Living; one additional English course (GSC, GSD or departmental).

PHILOSOPHY
College of Liberal Arts
(Bachelor of Arts)

Dr. James A. Diefenbeck
Chairperson
Telephone - 618-536-6641
Faner Building, Room 3065

The Philosophy Department offers a broad range of courses covering the areas of ethics, aesthetics, logic, metaphysics, the history of both Western and Oriental philosophy, as well as art, education, history, and religion.

First Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB	Social Science (select)[1]	3	3
GSC 102 or 104	Problems in Philosophy or Moral Decision[2]	-	3
GSD 101 & 117, 118 or 119	English Composition and Writing (select)[1]	3	2
GSD	Math (select)[1]	4	-
GSE	Human Health and Well Being (select)[1]	2	2
Math or CS	Mathematics or Computer Science[3]	-	3
		15	16

Second Year		Fall	Spring
GSA	Science (select)[1]	3	-
GSB	Social Science (select)[1]	3	-
GSC or FL	Humanities (select)[1] or Foreign Language[4]	3(4)	3(4)
GSC 208 or 209	Elementary Logic or Aesthetics[2]	-	3 (2)
GSD	Speech (select)[1]	2(3)	-
Phil	Ancient Philosophy[5]	3	-
Phil	Modern Philosophy[5]	-	3
Elective		-	6
		14-16	14-16

[1]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

[2]No more than 2 courses or 6 hours on the 100 and 200 level will count toward the major.

[3]One of these courses may be used to partially fulfill the Liberal Arts requirement for students beginning college anywhere Fall 1978 or later.

[4]Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GSC credit and four hours may be used to complete the thirty hours which are required from GSA, GSB, or GSC. If no foreign language is required, then the student may choose the GSC option instead.

[5]Required course for a major in Philosophy.

Philosophy As A Major

The program in philosophy is an excellent background for future work in law schools, seminaries, government service and other professional areas, as well as graduate school. The Department maintains its own advisement system to help the student design a program which best suits his or her interests and needs. The Honors Program in Philosophy provides students a chance to participate in seminars on a variety of topics.

Representative First Job Titles: Researcher, Minister, Technical Writer, Community Relations, Employee Relations, Grievances Specialist, Public Relations, Publications Officer, Alcoholism & Drug Addiction Researcher, Archival Worker, Museum Curator, Public Information Specialist, Mediator, Civic Reform Studies Specialist, Sales Trainee, Delinquency Prevention Specialist, Group Interaction Studies Specialist, Morale Studies Specialist, Venereal Disease Investigator, Motivational Researcher, Librarian.

PHOTOGRAPHIC AND AUDIO-VISUAL TECHNOLOGY

Robert White
Telephone - 618-536-6682
Blue Barracks

School of Technical Careers
(Associate in Applied Science)

The photographic and audio-visual technology major in the School of Technical Careers is unique in that all students complete a first year of core courses. The second year students may specialize in ultimate technical photographic laboratory curriculum or technical audio-visual curriculum.

Technical photographic courses are designed to prepare students as photographic laboratory technicians or photo finishers in industrial and commercial photographic processing agencies. Emphasis is placed on quality black and white and color photographic processes and materials. Students will study still photographic techniques in lecture/laboratory sessions and tour industrial and commercial photographic processing agencies to obtain practical understanding of commercial systems. The student should expect to invest approximately $600 for the production of a portfolio and for the purchase of special photo chemicals and supplies. Second year students are to provide their own fully adjustable cameras.

Technical audio-visual courses are designed to prepare students to work with industrial, university, and public school audio-visual delivery systems. Graphic production courses will enable students to broaden their marketable skills by developing technical skills essential to the production of basic graphics for audio-visual systems. Emphasis is placed on the technical quality of the work. Students should expect to invest approximately $500 for test equipment, tools, and graphic supplies.

Students selecting either specialization will find job opportunities throughout industry for quality technicians. Graduates are limited only by their own talent, motivation, and willingness to move to where jobs are available. Job pay is directly commensurate with the technician's ability, resourcefulness, and drive.

A minimum of 65.5 credit hours is required for the major in photographic and audio-visual technology with specialization in either photographic laboratory or audio-visual technology. This associate degree program can be completed in two academic years at Southern Illinois University at Carbondale or in combination with community college or other acceptable extra-institutional educational experience.

First Year		Fall	Spring
PAVT 111	Photo Processing I	4	-
PAVT 113	Photo Processing II (Process Camera)	4	-
PAVT 115	Audio-Visual Equipment Operation	6	-
STC 115a	Introduction to Chemistry (Inorganic)	2	-
PAVT 209	Graphics I--Basic Skills	-	6
PAVT 211	Photo Processing III (Color Positive)	-	6
STC 103	Fundamentals of Math	-	2
SCR 101a	Typewriting	-	2.5
		16	16.5

Technical Photo Lab Option

Second Year		Fall	Spring
PAVT 215	Photo Processing IV (Color Negative)	6	-
PAVT 221	Photo Processing V	6	-
GSD 101	English Composition	3	-
STC 153a	Oral Reporting	2	-
PAVT 251	Photo Lab Management	-	10
STC 299	Individual Study	-	4
STC 102	Technical Writing (8 weeks)	-	2
		17	16

Technical Audio-Visual Option

Second Year		Fall	Spring
PAVT 217	Maintenance & Repair of Audio-Visual Equipment	6	-
PAVT 219	Graphics II--Design, Planning & Production	6	-
GSD 101	English Composition	3	-
STC 153a	Oral Reporting	2	-
PAVT 275	Production of Multi Media Materials	-	6
PAVT 279	Practicum	-	6
STC 102	Technical Writing (8 weeks)	-	2
STC 299	Individual Study	-	2
		17	16

Representative First Job Titles: Photofinisher, Industrial Photographer, Photo Lab Technician.

PHYSICAL EDUCATION

College of Education
(Bachelor of Science)

Coordinator of Teacher Education Services
Telephone - 618-536-2329
Wham Building, Room 108

Chairperson, Physical Education
Telephone - 618-453-2685
Arena, Room 118

The Physical Education concentration is intended to qualify young people for positions as teachers, coaches, or specialists in public and private elementary or secondary schools, colleges, and universities as well as other social agencies which promote physical activity programs. Courses have been designed to meet the requirements of state departments of education and other agencies which have adopted professional standards.

Complete and integrated experience in teaching physical education and assisting in coaching under qualified supervisors is provided in the cooperating schools of the area. Added experiences are gained through membership in the Physical Education Club; membership in professional associations, participation on intramural teams; assisting in service class testing; professional journals; and working with recreational and school groups in teaching techniques of various activities.

First Year		Fall	Spring
GSA 209	Principles of Physiology	3	-
GSB 300, 301 or 212	History of U.S. or American Government[2]	-	3
GSB 202	Introduction to Psychology[2]	3	-
GSC	Humanities (select)[1]	3	3
GSD 101	English Composition	3	-
GSD 117, 118 or 119	Writing (select)[1]	-	2
GSD	Mathematics (select)[1]	-	4
GSE 201	Healthful Living[2]	2	-
Educ 201	Teacher's Role in Public School Education	1	-
Electives		-	3
		15	15

Second Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB	Social Science (select)[1]	3	-
GSC	English Elective in Humanities (required)	-	3
GSD	Speech (select)[1]	2	-
GSE	Human Health and Well Being	-	2
PE	Electives	7	7
		15	15

[1]Refer to the section General Studies for Transfer Students.

[2]General Studies courses which are required for Teacher's Certification.

A secondary concentration (the student may select the area) is recommended.

Refer to the Undergraduate Catalog for specific major requirements.

Minors are available in Aquatics, Athletic Training, Coaching, and Dance.

PHYSICAL THERAPIST ASSISTANT

School of Technical Careers
(Associate in Art)

Ted Okita
Program Coordinator
Telephone -618-453-2361
Wham Education Bldg, Rm 141

The Health Careers Council of Illinois reports that the field of physical therapy is one of the five most critical areas in which a manpower shortage exists. There are growing demands for physical therapy services in hospitals, extended care and nursing home facilities, and in private practices. The nation's concern and interest in improving our health care delivery system to the entire population should continue to provide opportunities for skilled workers in this field.

The physical therapist assistant is a skilled technician who works within the physical therapy service, which is under the direction of a physical therapist. The assistant is responsible to and supervised by the physical therapist.

A minimum of 70 credit hours is required for the associate degree.

First Year		Fall	Spring
GSA 106	Chemistry for Non-Science Majors	3	-
Zool 118	Introductory Zoology	4	-
GSA 208	Physiology Laboratory	-	1
GSA 209	Principles of Physiology	-	3
GSB 202	Introduction to Psychology	-	3
GSD 101	English Composition	3	-
GSD 152	Interpersonal Communication	-	2
PTH 100	Physical Therapy Orientation	2	-
PTH 113	Therapeutic Modalities I (8 weeks)	1.5	-
PTH 207	Massage (8 weeks)	1.5	-
PHSL 300	Human Anatomy	-	3
PTH 202	Physical Rehabilitation Techniques	-	2
PTH 204	Practicum I	-	2
		15	16

Second Year		Fall	Spring
GSA 101	Insights into Modern Communications Systems	3	-
HED 334	Standard First Aid	3	-
PEM 303	Kinesiology of Normal & Pathological Conditions	2	-
Psyc 301, 303, 304 or 305	Psychology	-	3
PTH 203	Pathology	1	-
PTH 205	Physical Therapy Science	-	2
PTH 208, 209	Therapeutic Exercise I & II	3	3
PTH 213	Therapeutic Modalities II	2	-
PTH 214	Practicum II	-	3
PEM 320	Physiological Bases of Human Movement	-	3
PEM 325 or 326	Training Room Techniques or Emergency Care & Prevention	-	2
		14	16

		Summer
PTH 321a,b	Clinical Internship	8
PTH 322	Clinical Seminar	2
		10

Physical Therapist Assistant As A Major

The graduate under the supervision of the registered physical therapist will be able to administer such physical therapy techniques as: infra-red and ultra-violet light whirlpool baths, hot moist packs, diathermy, ultra-sound paraffin baths, massage, therapeutic exercise, gait training, and other activities of daily living and assist in record keeping and general physical therapy housekeeping.

In addition to the physical therapy activities, the physical therapist assistant will assist the registered physical therapist in more complex procedures such as: administering manual muscle tests, electrical muscle stimulation, and other diagnostic tests. He or she also observes, records and reports to the supervisor conditions, reactions, and responses related to his or her assigned duties.

Before graduation, the student will serve an internship of 12 weeks in two separate hospitals located away from the campus.

Representative First Job Titles: Physical Therapist Assistant.

PHYSICS[1]

College of Education
(Bachelor of Science)

Coordinator of Teacher Education Services
Telephone - 618-536-2329
Wham Building, Room 108

A major in Physics may be pursued through either the College of Science or the College of Education. The program of study provides for a mastery of the basic principles of classical and quantum physics. It also provides a breadth of coverage in the applications of physics principles to neighboring fields. Because of the central position of physics among the physical sciences, the physics graduate with his analytical and instrumental skills can flexibly contribute to the solution of pressing national problems of energy supply, water resources, transportation, environmental healthfulness, security and other vital concerns. A basic knowledge of classical and quantum physics is essential for a successful entry into a very wide variety of interdisciplinary areas of science such as biophysics, geophysics, communications science, space science, environmental science, medical science, and engineering.

The program at SIUC, building upon a solid foundation of classical physics, provides a sound introduction to atomic and molecular physics with options for specializing in solid state, atmospheric, plasma, nuclear, mathematical physics and biophysics.

First Year		Fall	Spring
GSB	Social Studies (select)[2]	3	-
GSC	Humanities (select)[2]	-	3
GSD 153	Public Speaking	-	3
GSD 101	English Composition	3	-
GSE 201	Healthful Living	2	-
GSD 117, 118 or 119	Writing (select)[3]	-	2
Math 111	College Algebra and Trigonometry[6]	5	-
Math 150	Calculus I	-	5
Phys 205a & 255a	University Physics and Lab[4,6]	-	4
GSB 212, 300, or 301	American Government or U.S. History	3	-
		16	17

Second Year		Fall	Spring
GSA	Science (select)[2]	3	3
GSB 202	Introduction to Psychology	3	-
GSC	English, Elective in Humanities (select)[2]	3	-
GSE	Human Health and Well Being (select)[2]	-	2
Math 250	Calculus II	4	-
Chem 224, 225	Introduction to Chemical Principles & Lab[4,5]	-	7
Phys 205b, 255b	University Physics & Lab[4,6]	4	-
Phys 205c	University Physics (c)	-	3
Educ 201	Teacher's Role in Public School Educaton	-	1
		17	16

[1]See also the program (B.S.) under the College of Science.

[2]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

[3]Math III substitutes for GSD Mathematics.

[4]These courses count towards the GSA science requirement.

[5]These courses are for students with a year or more of high school chemistry. Those with less than a year should take Chem II5 (Introduction to General Chemistry) before Chem 224.

[6]Entering freshmen who qualify to begin with Math II0b or higher may take Phys 204a,b (College Physics-Honors) and Phys 254a,b (College Physics Laboratory-Honors) during the first year. In the fall semester of the second year they may take Phys 205c-3, an Introduction to Modern Physics with Laboratory.

Physics As A Major

The following specific General Studies courses are required for teacher certification (these courses may be completed during the freshman and sophomore years): GSB 202, Introduction to Psychology; GSB 212, Introduction to American Government and Politics, or GSB 300 or 301, History of the United States; GSD 101, English Composition; GSD 117, 118, or 119, Expository, Technical or Creative Writing; GSD 153, Public Communication; GSE 100-114 (2 hours), Physical Education Activities; GSE 20I, Healthful Living; and one additional English course (GSC, GSD or departmental).

PHYSICS
College of Science
(Bachelor of Science)

Dr. Fazley Bary Malik,
Departmental Executive Officer
Telephone-618-453-2570
Neckers Building, Room 485

A major in Physics may be pursued through either the College of Science or the College of Education. The program of study provides for a mastery of the basic principles of classical and quantum physics. It also provides a breadth of coverages in the applications of physical principles to neighboring fields. Because of the central position of physics among the physical sciences, the physics graduate with analytical and instrumental skills can flexibly contribute to the solution of pressing national problems of energy supply, water resources, transportation, environmental healthfulness, security and other vital concerns. A basic knowledge of classical and quantum physics is essential for a successful entry into a very wide variety of interdisciplinary areas of science such as biophysics, geophysics, communications science, space science, environmental science, medical science, and engineering.

The program at SIUC, building upon a solid foundation of classical physics, provides a sound introduction to atomic molecular physics with options for specializing in solid state, atmospheric, plasma, nuclear, mathematical physics and biophysics.

First Year		Fall	Spring
GSB	Social Studies (select)[2]	3	-
GSC	Humanities (select)[2]	-	2
GSD	Speech	-	2 (3)
GSD 101	English Composition	3	-
GSE	Human Health and Well Being (select)[2]	1	-
*FL	Foreign Language[3,4]	4	4
*Math 111	College Algebra and Trigonometry[4]	5	-
*Math 150	Calculus I[4]	-	5
*Phys 205a	University Physics and Lab[3,4]	-	4
		16	17 (18)

Second Year		Fall	Spring
Biol	Biological Sciences (not GSA)[2,3,4]	3	3
GSB 211	Contempory Economics	3	-
GSC	Humanities (select)[2]	3	-
GSE	Human Health and Well Being (select)[2]	-	1
*Math 250	Calculus II	4	-
*Chem 224, 225	Introduction to Chemical Principles and Lab[3,4,5]		-
*Phys 205b, 255b	University Physics and Lab[3,4]	4	-
*Phys 205c	University Physics	-	3
*Phys 301	Theoretical Methods in Physics	-	2
		17	16

*Required courses for a major in Physics.

[1]See also the program (B.S.) under the College of Education.

[2]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

[3]Approved substitutes for General Studies.

[4]Students in the College of Science must take one year of foreign language, one year of math, 6 semester hours of physical sciences, and 6 semester hours of biological sciences.

[5]These courses are for students with a year or more of high school chemistry. Those with less than a year should take Chem 115 (Introduction to General Chemistry) before Chem 224.

Physics as a Major

At SIUC a student may elect one of several options to prepare himself or herself as a physicist. Choices exist for both the experimentally- and theoretically-oriented student. The physics major may prepare to enter the graduate school or an industrial and/or government laboratory. In addition, there is a degree option for those wishing to teach in the secondary level school system.

Representative First Job Titles: Physicist, Acoustics Physicist, Design Physicist, Electricity and Magnetism Physicist, Light Physicist, Quality Control Physicist, Research Physicist, Aerodynamics Scientist, Applied Physics Researcher, Astrophysicist, Atomic and Molecular Physicist, Biophysicist, Geophysicist, Factory Insurance Representative, Thermodynamics Physicist, Optics Physicist, Manufacturer's Representative, Mechanics Physicist, Nuclear Physicist, Plasma Physicist, Product Studies and Testing Physicist, Solid-State Physicist, Physical Metallurgy Scientist.

PHYSIOLOGY
College of Science
(Bachelor of Arts)

Dr. John Voigt,
Acting Departmental Executive Officer
Telephone - 618-453-2583
Life Science II, Room 245

Physiology involves studying the functioning of organisms during life and how life processes operate. Courses include pharmacology, electron microscopy, physiological techniques, and anatomy. Although a bachelor's degree with such a major is adequate preparation for some jobs, graduate training is usually required to obtain professional recognition. Colleges and universities provide the greatest job opportunities. Government agencies are the second largest employers of physiologists.

First Year		Fall	Spring
GSB	Social Studies (select)[1]	-	3
GSC	Humanities (select)[1]	-	3
GSD 101	English Composition	3	-
GSD 118	Technical Report Writing	-	2
FL	(select)[2,3]	4	4
Chem 222a,b or Chem 224, 225	Introduction to Chemical Principles[2,3]	4 (7)	4 (-)
Math 110a,b or	College Algebra and Trigonometry[2,3]	3 (5)	2
Math 111	College Algebra and Trigonometry[2,3]	-	-
		14-19	14 (18)

Second Year		Fall	Spring
GS	Area B,C (select)[1]	2	3
Biol	Select Two From Biology 305, 307, 309[2,3]	3	3
Phys 203a,b & 253a,b	University Physics and Lab[2]	4	4
Chem 344	Organic Chemistry	4	-
Chem 345	Lab Techniques	2	-
Chem 346	Organic Chemistry	-	2
Chem 347	Lab Techniques	-	3
		15	15

[1]Refer to section General Studies for the Transfer Student.

[2]Approved substitutes for General Studies.

[3]Students in the College of Science must take one year of foreign language, one year of math, 6 semester hours of physical sciences, and 6 semester hours of biological sciences.

Third and Fourth Years

Students fulfill remaining General Studies requirements and select physiology courses according to professional interests and remaining departmental requirements.

Physiology As A Major

In addition to adequate equipment for all routine work, the following facilities are available to our graduate students: An RCA and a Hitachi electron microscope as well as a shadowcaster, photographic equipment, knifebreaker, and ultramicrotome; isotopic equipment including scalers and monitors; fully equipped animal room, autoclave, several varieties of analytic balances, refrigerated centrifuges; constant temperature baths and ovens; walk-in cold rooms; electrophoresis equipment; Warburg apparatus; physiographs; fraction collectors; oscilloscopes; blood gas apparatus, electrocardiograph; strength testing equipment.

Representative First Job Titles: Physiologist, Pharmacologist, Entomologist, Ecologist, Biological Photography Staff, Biostatistician, Biological Warfare Personnel, Aquatic Biologist, Bioastronautician, Astrobiologist, Physiological Researcher, Genetics Researcher, Manufacturer's Representative, Pathologist, Medical Bacteriologist, Food Bacteriologist, Fishery Bacteriologist, Physical Anthropologist, Technical Writer, Plant Physiologist, Virologist.

PLANT AND SOIL SCIENCE

(Business Option)
School of Agriculture
(Bachelor of Science)

Dr. Gerald D. Coorts, Chairperson
Telephone - 618-453-2496
Agriculture Building, Room 176

The Department of Plant and Soil Science includes field crop production, horticulture and soils. There are many widely varied opportunities for students with an interest in plants or soils. The program is designed to provide thorough training in both theory and practice. Although the business option is oriented toward the student interested in working in business and industry, he or she still may select courses in a wide choice of electives from throughout the School of Agriculture and the University. Opportunities for individual program development may be realized through work experience, internships, special studies, and seminars. A course of study in international agriculture can be taken if the student so desires.

First Year		Fall	Spring
Chem 140 A	Chemistry	-	4
Botany 200, 201	General Botany and Lab	4	-
GSB 202	Introduction to Psychology	3	-
ABE 204	Introduction to Agricultural Economics	-	3
GSC	Humanities (select)	3	3
GSD 101	English Composition	3	-
GSD 117 or 118	Expository or Technical Report Writing	-	2
GSE	Human Health and Well Being	2	2
PLSS 200	Principles of Field Crop Production	-	3
		15	17

Second Year		Fall	Spring
GSA	Science (select)	2	-
GSB	Social Studies (select)	3	-
GSC	Humanities (select)	-	3
GSD 107	Intermediate Algebra	4	-
GSD 153	Public Speaking	-	3
PLSS 220	General Horticulture	3	-
PLSS 240	Soil Science	-	4
GSA or B or C elective		-	3
Acct 210	Accounting Principles and Control	-	3
Chem 140b	Survey of Chemistry	4	-
		16	16

Third and Fourth Years

The last two years of a student's program concentrate on specific professional objectives. A total of 40 hours in agriculture is required which includes 28 hours in Plant and Soil Science, and 7 hours from two other departments in the School of Agriculture. Of the 28 required hours in Plant and Soil Science, at least 15 hours must be at the 300- and 400-level, with no less than 9 hours at the 400-level. In addition, the student must take either Marketing 304 or ABE 360, Ad Sc 301, 7 hours of business electives, and Botany 320. The student may select courses within the university for 8 hours of outside electives.

Plant And Soil Science As A Major

Numerous job opportunities are available for graduates of this option. The department maintains close contact with potential employers and assists students in finding internships and permanent positions. A minor is not required and there is no foreign language requirement. An honors program and a work experience program are available.

Representative First Job Titles: Soil Conservationist, Water Conservationist, Soil Erosion Prevention Specialist, Geological Environment Mapping Scientist, Aquifers and Rocks Characteristics Scientist, Plant and Soil Laboratory Technologist, Production Manager, Plant Quarantine Inspector, Plant Pest Control Inspector, Farm Manager, Entomologist, Foreman-Park Maintenance, Public and Environmental Health Scientist, Plant Ecologist, Plant Breeding Expert, Plant Morphologist, Technical Service Representative, Plant Pathologist, Plant Physiologist, Plant Taxonomist, Soil Bacteriologist.

PLANT AND SOIL SCIENCE
(Environmental Studies Option)
School of Agriculture
(Bachelor of Science)

Dr. Gerald D. Coorts, Chairperson
Telephone - 618-453-2496
Agriculture Building, Room 176

The Department of Plant and Soil Science includes in its program a new option in Environmental Studies. The program is designed to familiarize the student with environmental problems relating to plants and soils. Thorough training in the solution to these problems will prepare students for interesting careers with environmental protection agencies, pollution control boards and other agencies.

First Year		Fall	Spring
Botany 200, 201	General Botany and Lab	4	-
Chem 224, 225	Intro. to Chem. Prin. and Lab	-	7
GSB 220	Survival of Man	3	-
Econ 214	Intro. to Macroeconomics	-	3
GSC 221	Survival of Man	-	3
GSC	Humanities (select)	3	-
GSD 101	English Composition	3	-
GSD 118	Technical Report Writing	-	2
GSE	Human Health and Well Being (select)	2	-
		15	15

Second Year		Fall	Spring
GSA 330	Weather	-	3
GSB 212	Intro. to American Government & Politics	4	-
GSC	Humanities (select)	-	3
GSD 107	Intermediate Algebra	4	-
GSD 153	Public Speaking	-	3
GSA, B or C	Elective	3	-
GSE	Human Health and Well Being (select)	2	-
AG 333	Agr. & Forestry Env. Problems	-	3
Econ 215	Introduction to Microeconomics	3	-
PLSS 220	General Horticulture	-	3
		16	15

Third and Fourth Years

The last two years of a student's program concentrate on specific professional objectives. The student must enroll in the following courses: Anl 455-2, Agri 401-3, and 440-3; Bot 320-4; Econ 333-3, PLSS 200-3, 240-4, 381-1, 419-3, 420-4, 441-3, 447-3, and 468-3, PolS 325-3 and 340-3; and TEE 314-4. In addition, the student may select courses within the university for 3 hours of outside electives, and 9 hours of electives in the School of Agriculture.

Environmental Studies As A Major

Numerous job opportunities are available for graduates of this option. The department maintains close contact with employers and assists students in finding internships and permanent positions. A minor is not required and there is no foreign language requirement. An honors program and a work experience program are available.

Representative First Job Titles: Soil Conservationist, Water Conservationist, Soil Erosion Prevention Specialist, Geological Environment Mapping Scientist, Aquifers and Rocks Characteristics Scientist, Plant and Soil Laboratory Technologist, Production Manager, Plant Quarantine Inspector, Plant Pest Control Inspector, Farm Manager, Entomologist, Foreman-Park Maintenance, Public and Environmental Health Scientist, Plant Ecologist, Plant Breeding Expert, Plant Morphologist, Technical Service Representative, Plant Pathologist, Plant Physiologist, Plant Taxonomist, Soil Bacteriologist.

PLANT AND SOIL SCIENCE

(General Option)
School of Agriculture
(Bachelor of Science)

Dr. Gerald D. Coorts, Chairperson
Telephone - 618-453-2496
Agriculture Building, Room 176

The Department of Plant and Soil Science includes field crop production, horticulture and soils. There are many widely varied opportunities for students with an interest in plants or soils. The program is designed to provide thorough training in both theory and practice. Although the general option is production oriented, the student may select elective courses from the School of Agriculture and the University. Opportunities for individual program development may be realized through work experience, internships, special studies, and seminars. A course of study in international agriculture can be taken if the student so desires.

First Year		Fall	Spring
Chem 140A	Chemistry	-	4
Botany 200, 201	General Botany and Lab	4	-
GSB	Social Studies (select)	3	-
ABE 204	Agricultural Economics	-	3
GSC	Humanities (select)	3	3
GSD 101	English Composition	3	-
GSD 117 or 118	Expository or Technical Report Writing	-	2
GSE	Human Health and Well Being (select)	2	2
PLSS 200	Principles of Field Crop Production	-	3
		15	17

Second Year		Fall	Spring
GSA	Science (select)	2	-
GSB	Social Studies (select)	3	-
GSC	Humanities (select)	-	3
GSD 107	Intermediate Algebra	4	-
GSD 153	Public Speaking	-	3
PLSS 220	General Horticulture	3	-
PLSS 240	Soil Science	-	4
GSA or B or C	Elective	-	3
Chem 140b	Chemistry	4	-
PLSS elective		-	3
		16	16

Third and Fourth Years

The last two years of a student's program concentrate on specific professional objectives. A total of 45 hours in agriculture is required which includes 28 hours in Plant and Soil Science, 6 hours from two other departments in the School of Agriculture and Botany 320-4. Of the 28 required hours in Plant and Soil Science, at least 15 hours must be at the 300- and 400-level with no less than 9 hours at the 400-level. In addition, the student may select courses within the university for 19 hours of outside electives.

Plant And Soil Science As A Major

Numerous job opportunities are available for graduates of this option. The department maintains close contact with potential employers and assists in finding internships and per-manent positions. A minor is not required and there are no foreign language requirements. An honors program and a work experience program are available.

Representative First Job Titles: Soil Conservationist, Water Conservationist, Soil Erosion Prevention Specialist, Geological Environment Mapping Scientist, Aquifers and Rocks Characteristics Scientist, Plant and Soil Laboratory Technologist, Production Manager, Plant Quarantine Inspector, Plant Pest Control Inspector, Farm Manager, Entomologist, Foreman-Park Maintenance, Public and Environmental Health Scientist, Plant Ecologist, Plant Breeding Expert, Plant Morphologist, Technical Service Representative, Plant Pathologist, Plant Physiologist, Plant Taxonomist, Soil Bacteriologist.

PLANT AND SOIL SCIENCE
(Landscape Horticulture)
School of Agriculture
(Bachelor of Science)

Dr. Gerald Coorts, Chairperson
Telephone - 618-453-2496
Agriculture Building, Room 176

The Department of Plant and Soil Science includes in its program an option in Landscape Horticulture. The program is designed to provide thorough training in both theory and practice to prepare students for interesting careers in landscaping or gardening in parks, playgrounds, residential or industrial areas, road and street parkway improvement and maintenance, and in other public and private work to make the environment more pleasing and useful.

First Year		Fall	Spring
Chem 140 A	Chemistry	-	4
Botany 200, 201	General Botany and Lab	4	-
GSB 202	Introduction to Psychology	3	-
ABE 204	Agricultural Economics	-	3
GSC	Humanities (select)	3	3
GSD 101	English Composition	3	-
GSD 117 or 118	Expository or Technical Report Writing	-	2
GSE	Human Health and Well Being (select)	2	2
PLSS 220	Principles of Field Crop Production	-	3
		15	17

Second Year		Fall	Spring
GSA	Science (select)	-	2
GSB	Social Studies (select)	3	-
GSC	Humanities (select)	-	3
GSD 107	Intermediate Algebra	4	-
GSD 153	Public Speaking	-	3
PLSS 240	Soil Science	-	4
GSA, B, or C	Elective	3	-
AdSc 301	Management and Supervision	-	3
PLSS 200	Principles of Field Crop Production	-	3
AGEM 376	Applied Graphics	2	-
Chem 140b	Chemistry	4	-
		16	18

Third and Fourth Years

The last two years of a student's program concentrate on specific professional objectives. The student must enroll in the following courses: Biol 307-3, Bot 320-4, 456-4 or 457-3, Geog 470a-3, PLSS 322-3, PLSS 327-3; 328a, b-2,2; 381-1, 420-4, 428a, b-33, 432-4 or 434-3, and ZOOL 316-3. In addition, the student may select courses within the university for 4-6 hours of outside electives, and 10 hours of electives in the School of Agriculture.

Landscape Horticulture As A Major

Numerous job opportunities are available for graduates of this option. The department maintains close contact with employers and assists students in finding internships and permanent positions. A minor is not required and there is no foreign language requirement. An honors program and a work experience program are available.

Representative First Job Titles: Soil Conservationist, Water Conservationist, Soil Erosion Prevention Specialist, Geological Environment Mapping Scientist, Aquifers and Rocks Characteristics Scientist, Plant and Soil Laboratory Technologist, Production Manager, Plant Quarantine Inspector, Plant Pest Control Inspector, Farm Manager, Entomologist, Foreman-Park Maintenance, Public and Environmental Health Scientist, Plant Ecologist, Plant Breeding Expert, Plant Morphologist, Technical Service Representative, Plant Pathologist, Plant Physiologist, Plant Taxonomist, Soil Bacteriologist.

PLANT AND SOIL SCIENCE
(Science Option)
School of Agriculture
(Bachelor of Science)

Dr. Gerald D. Coorts, Chairperson
Telephone - 618-453-2496
Agriculture Building, Room 176

The Department of Plant and Soil Science includes field crop production, horticulture and soils. There are many widely varied opportunities for students with an interest in plants or soils. The program is designed to provide thorough training in both theory and practice. Although the science option is oriented toward the student interested in an advanced degree, he or she still may select elective courses from the School of Agriculture and the University. Opportunities for individual program development may be realized through work experience, internships, special studies, and seminars. A course of study in international agriculture can be taken if the student so desires.

First Year		Fall	Spring
GSA 101	Insights Mod. Comm. Systems	-	3
Botany 200, 201	General Botany and Lab	4	-
Chem 222a	Intro. to Chemical Principles	4	-
ABE 204	Agricultural Economics	-	3
GSC	Humanities (select)	3	3
GSD 101	English Composition	3	-
GSD 117 or 118	Expository or Technical Report Writing	-	2
GSE	Human Health and Well Being (select)	2	2
PLSS 200	Principles of Field Crop Production	-	3
		16	16

Second Year		Fall	Spring
GSB	Social Studies (select)	3	3
GSC	Humanities (select)	3	-
Math 110 or 111	College Algebra and Trigonometry	5	-
GSA or B or C	Elective	3	-
PLSS 220	General Horticulture	3	-
PLSS 240	Soil Science	-	4
Chem 222b	Intro. to Chemical Principles	-	4
AG electives		-	2
GSD 153	Public Speaking	-	3
		17	16

Third and Fourth Years

The last two years of a student's program concentrate on specific professional objectives. A total of 40 hours in agriculture is required which includes 28 hours in Plant and Soil Science, and 6 hours from two other departments in the School of Agriculture. Of the 28 required hours in Plant and Soil Science, at least 15 hours must be at the 300- and 400-level with no less than 9 hours at the 400-level. In addition, the student must take Botany 320, Chem 340 and 341 and 10 hours of courses in Mathematics, Physical Sciences, or Biological Sciences. The student may select courses within the university for 7 hours of outside electives.

Plant And Soil Science As A Major

Numerous job opportunities are available for graduates of this option. The department maintains close contact with many universities and research laboratories and assists in placing students. A minor is not required and there is no foreign language requirement. An honors program and a work experience program are available.

Representative First Job Titles: Soil Conservationist, Water Conservationist, Soil Erosion Prevention Specialist, Geological Environment Mapping Scientist, Aquifers and Rocks Characteristics Scientist, Plant and Soil Laboratory Technologist, Production Manager, Plant Quarantine Inspector, Plant Pest Control Inspector, Farm Manager, Entomologist, Foreman-Park Maintenance, Public and Environmental Health Scientist, Plant Ecologist, Plant Breeding Expert, Plant Morphologist, Technical Service Representative, Plant Pathologist, Plant Physiologist, Plant Taxonomist, Soil Bacteriologist.

POLITICAL SCIENCE[1]
(Government)
College of Education
(Bachelor of Science)

Coordinator of Teacher Education Services
Telephone - 618-536-2329
Wham Building, Room 108

The Department of Political Science offers an undergraduate major in the College of Liberal Arts and the College of Education. The major requires a minimum of thirty-four hours in Political Science courses. A minimum GPA of 2.0 is required. Furthermore, at least three courses must be taken at the 400 level.

First Year		Fall	Spring
GSA	Science (select)[2]	3	-
GSB 202	Introduction to Psychology	-	3
GSB 211[3]	Contemporary Economics	-	3
GSB 212	Intro. to American Government & Politics	4	-
GSC	Humanities (select)[2]	3	3
GSD 101	English Composition[2]	3	-
GSD 117, 118 or 119	Writing (select)[2]	-	2
GSE	Human Health and Well Being	2	-
GSD	Mathematics (select)[2]	-	4
Ed 201	Teacher's Role in Public School Education	-	1
		15	16

Second Year		Fall	Spring
GSA	Science (select)[2]	3	3
GSC	English Elective in Humanities	3	-
AmHist[3]		-	3
GSB 250[3]	Intro. Comparative Government & Politics	3	-
GSE 201	Healthful Living	-	2
GSD 153	Public Speaking	2	-
Elective[2,4]		4	8
		15	16

[1]See also the program under the College of Liberal Arts.

[2]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

[3]Recommended but not required.

[4]Elective hours should be used in the following ways: (1) students may explore areas of interest; (2) in order to select a minor.

Political Science As A Major

The following specific General Studies courses are required for teacher certification. (These courses may be completed during the freshman and sophomore years.): GBS 202, Introduction to Psychology; GSB 212, Introduction to American Government and Politics, or GSB 300 or 301, History of the United States; GSD 101, English Composition; GSD 117, 118 or 119, Expository, Technical or Creative Writing; GSD 153, Public Speaking; GSE 100-114 (2 hours), Physical Education Activities; GSE 201, Healthful Living; and one additional English course (GSC, GSD or departmental).

POLITICAL SCIENCE*

College of Liberal Arts
(Bachelor of Arts)

Dr. John Baker-- Chairperson
Telephone - 618-536-2371
Faner Building, Room 3081

The Department of Political Science offers an undergraduate major in the College of Liberal Arts and the College of Education. The major requires a minimum of thirty-four hours in five different fields. A minimum GPA of 2.0 is required. Furthermore, at least three courses must be taken at the 400 level.

First Year		Fall	Spring
GSA	Science (select)[1]	3	-
GSB	Social Science (select)[1]	3	3
GSB 212	Intro. to American Government & Politics[1]	-	4
GSC	Humanities (select)[1]	3	3
GSD 101 & 117, or 118 or 119	English Composition and Writing (select)	3	2
GSE	Human Health and Well Being (select)[1]	2	-
GSD	Math (select)[1]	-	4
		14	16

Second Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSC or FL	Humanities (select)[1] or Foreign Language[3]	3 (4)	3 (4)
GSB 270	Intro. to International Relations[5]	-	3
GSE	Human Health and Well Being (select)[1]	-	2
GSD	Speech (select)[1]	2 (3)	-
Math or CS	Mathematics or Computer Science[4]	3	-
Elective[6]		3	3
		14-16	14-15

*See also the program under the College of Education.

[1]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

[2]Required by the major.

[3]Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GSC credit and four hours may be used to complete the thirty hours which are required from GSA, GSB, or GSC. If no foreign language is required, then the student may choose the GSC option instead.

[4]One of these courses may be used to partially fulfill the Liberal Arts requirement for students beginning college anywhere Fall 1978 or later.

[5]Recommended but not required.

[6]Elective hours should be used to explore areas of interest and to enhance career opportunities; or courses may be selected to satisfy Liberal Arts requirements (refer to College of Liberal Arts section).

Political Science As A Major

The study of political science is concerned with predicting, explaining, and evaluating the political behavior, beliefs, laws, and organizational arrangements of people in a variety of settings.

Students may select a program from a wide range of courses in such fields as theory and methodology, American politics, public law, public administration, comparative politics and international relations.

The Department of Political Science encourages majors to pursue a diversified curriculum. Those interested in foreign affairs should stress a foreign language. The political science student should be aware that mathematics and statistics are increasingly important in the study of the social sciences, including political science. The ability to write lucid English prose is also a decided asset. Students considering concentrating in political science should seek advice about planning their college programs from the Department of Political Science faculty.

Representative First Job Titles: American Government Studies Officer, Sales Agent, Censoring Officer, Community Relations Officer, Comparative Gov't Studies Officer, Constitutional Legal Aide, Probation and Parole Office, Customs Port Investigator, Foreign Aide Studies Officer, Gov't Policy Position Analyst, Labor Relations Officer, Manpower Planning Officer, Manpower Resources Studies Officer, FBI Agent, Operations Research Analyst, Legislative Aide, Political Systems Researcher, Political Theory & Philosophy Studies Officer, Budget Analyst, Public Opinion Polls Officer, Public Relations Officer, Claims Authorizer, Systems Evaluator, Import Analyst.

PRE-DENTISTRY
Pre-professional
(Select Academic Unit)

Patricia Sims
Health Professions Information Office
Telephone - 618-536-2147
Neckers A-181

The SIUC pre-dental program meets the general requirements of all United States dental schools. It is designed by the Pre-dental Advisory Committee to prepare students for taking the Dental Admission Test not later than spring of the junior year. The Committee and the Health Professions Information Office are available to offer information and guidance to pre-dental students and to assist in the process of application by furnishing a composite evaluation of each applicant to the dental schools to which he or she applies.

First Year		Fall	Spring
GSB	Social Studies (select)	3	3
GSC	Humanities	-	3
GSD 101	English Composition	3	-
GSD 117 or 118	Expository or Technical Report Writing	-	2
GSE	Human Health and Well Being	2	1-2
Math 110a, b	College Algebra and Trigonometry	3	2
Zool 118,220b[1]	Intro. Zoology & Diversity of Animal Life	4	4
		15	15-16

Second Year		Fall	Spring
GSB 202	Introduction to Psychology	3	-
GSD 152 or 153	Interpersonal Communication or Public Speaking	2-3	-
Chem 222a,b[2]	Introduction to Chemical Principles	4	4
Phys 203a, b	College Physics	3	3
Phys 253a, b	College Physics Laboratory	1	1
GSC	Humanities (select)	3	3
Eng 290[3]	Intermediate Expository Writing or other	-	3
		16-17	14

[1]Community college students may substitute general biology if the course is intended for science majors.

[2]Students lacking high school chemistry must begin with Chem 115. Chemistry majors or students hoping to enter dental school with only three years of college should plan to complete inorganic and organic chemistry during their first two years. Generally, there is some advantage to finishing pre-dental chemistry requirements at a four-year college.

[3]Dental applicants must have 6 hours credit in courses taught by the Department of English in writing or literature courses; speech does not substitute.

Third and Fourth Years

If all requirements are completed, students may take the Dental Admission Test in spring of their sophomore or fall of their junior years and apply for entry after three years of undergraduate preparation. Most students, however, are admitted to dental schools after four or more years of preparation. Students may choose any major and must complete the departmental, college and university requirements for a degree. No preference among possible majors is given by the professional schools. In addition to required courses, it is recommended that the student choose from among the following courses, as his or her time permits: Genetics, Cellular Biology, Embryology, Developmental Biology, Comparative Anatomy, Microbiology, Biochemistry, Psychobiology, Personality or Social Psychology. Additional mathematics, statistics, humanities and social sciences will also be helpful.

Dentistry As A Career

Professional training requires four years in the dental school. Specialties beyond general practice require further training. Although competition for spaces in the dental schools is severe, there is a continuing need for additional dentists. Dentistry is becoming increasingly involved in interdisciplinary practice, focusing on the medical and social aspects of dental health, stressing preventive dental care, and becoming involved in community health care delivery as well as the traditional private practice.

PRE-LAW
(Preprofessional)
College of Liberal Arts

Pre-Law Advisor
Telephone - 618-453-3388
Faner Hall, 1229 - Liberal Arts Advisement

The Association of American Law Schools and the Southern Illinois University School of Law follow the policy that the effectiveness of prelegal study cannot be advanced by prescribing courses of study or extracurricular activities. Instead, primary emphasis is directed toward the development in pre-law students of basic skills and insights through education for comprehension and expression in words, for critical understanding of the human institutions and values with which law deals, and for creative power in thinking. This is best achieved in fields of individual interests and abilities. Subjects which provide stimulating training for one person may do very little to arouse and sharpen the intellect of another. In addition, law touches so many phases of human activity that there is scarcely a subject which is not of value to the law student and to the lawyer. A student is therefore advised to place as much emphasis on the liberal arts as his or her own program of undergraduate study will permit; and within the outlines of that program the following should also be noted:

The essential ability to think precisely and exactly is most likely to be acquired through courses in logic, mathematics, philosophy, and the natural sciences.*

Courses in English composition and public speaking develop the power of clear and well-ordered expression. Preparation in composition is essential and preparation in public speaking is of great value.*

The fields of history (particularly English and American history), political science, psychology, economics, and sociology are important to an appreciation of human institutions and values and their relation to law.*

An understanding of financial statements and of elementary accounting principles has become almost indispensable.

There are opportunities in special types of practice for those who concentrate in particular fields, such as engineering, business administration, chemistry, physics, or agriculture before entering law school.

*Refer to the section General Studies for the Transfer Student to determine what courses may be taken to satisfy the university's general education requirements.

Pre-Law

Pre-Law is not a major in that students cannot receive a degree in Pre-Law. Since most law schools now require applicants to possess a bachelor's degree, students are advised to select a major in the academic unit where they would like to obtain a degree.

PRE-MEDICINE AND PRE-OSTEOPATHY

Preprofessional
(Select Academic Unit)

Patricia Sims
Health Professions Information Office
Telephone - 618-536-2147

At SIUC the pre-medical program is guided by the Pre-medical Advisory Committee. Through the Health Professions Information Office students are able to find information concerning professional schools and their requirements, curriculum guidance, and assistance with the procedures involved in applying to medical or osteopathic medical schools. The curriculum meets the general requirements of all United States medical schools and is designed to provide students with a strong course background on which to base their medical education.

First Year		Fall	Spring
GSB	Social Studies (select)	3	3
GSC	Humanities (select)	-	3
GSD 101	English Composition	3	-
GSD 117 or 118	Expository or Technical Report Writing	-	2
GSD 112	Statistics (or select from math recommendations)	-	2
GSE	Human Health and Well-Being (select)	1	1
Math 111	College Algebra-Trigonometry	5	-
Zool 118,220b[1]	Intro Zoology & Diversity of Animal Life	4	4
		16	15

Second Year		Fall	Spring
GSB 202	Introduction to Psychology	3	-
GSC	Humanities (select)	3	-
GSD 152 or 153	Interpersonal Communication or Public Speaking	2-3	-
CHEM 222a,b	Introduction to Chemical Principles	4	4
ENG 290	Intermediate Expository Writing	-	3
Electives[2]	Select from degree requirements or from courses recommended for pre-med students	4	9
		16-17	16

1Community college students may substitute a year of general biology if the course is intended for science majors.

[2]Community college students are encouraged to complete foreign language and associate degree requirements before transferring, in order to take as much science as is practical at the 4-year school.

Third and Fourth Years

Pre-medical students must complete organic chemistry in the third year in order to take the Medical College Admission Test in the spring of that year. Application procedures require a year.

Pre-medical students may choose any major in which to earn the bachelor's degree. Requirements of that degree, of the college in which it is granted, and of the University must be met at the same time that premedical requirements are taken. If a science major is chosen, there will be considerable overlapping of requirements. Additional courses recommended for pre-medical preparation include genetics, cellular biology, embryology or developmental biology, comparative anatomy, microbiology, biochemistry, psychobiology, additional mathematics, and social sciences. If the major chosen is in the College of Science, a year of foreign language will be required.

Medicine As A Career

Medical training will require another four academic years, plus residency. Admission to medical schools is extremely competitive. Students can help themselves by making realistic appraisals of their interests and abilities, by planning ahead to meet all requirements and time schedules, and by keeping themselves informed of admission requirements and procedures. They will receive help through the Health Professions Information Office and Pre-medical Advisory Committee.

Medicine today offers both promise and challenge, whether students are interested in becoming primary physicians, physician specialists or medical scientists. Prevention as well as cure, and the extension of health care to all of society have become important goals in the preparation of physicians.

The flexibility with which the pre-medical students at SIUC may approach their total undergraduate preparation as well as the quality of the premedical requirements make it possible for students to achieve an excellent pre-medical preparation.

PRE-NURSING
Preprofessional
(Pre-major Advisement)
General Academic Programs

Billie Jacobini
Pre-major Advisement Center
Telephone - 618-453-4351
Woody Hall, Wing C, Room 117
or
Mary Goss
Pre-major Advisement Center
Telephone - 618-453-4351
Woody Hall, Wing C, Room 117

The baccalaureate degree in nursing is offered at Southern Illinois Univeristy at Edwardsville. Students may complete selected General Studies and nursing prerequisites at Carbondale during their first three semesters and apply for admission to the School of Nursing at SIU-Edwardsville for the remainder of the baccalaureate program.

The total program is designed for those who wish to become registered nurses or registered nurses who wish: (1) to strengthen their scientific basis for nursing practice, (2) to broaden and deepen their general educational and cultural background, and (3) to obtain a baccalaureate degree to qualify for further study on the graduate level.

First Year		Fall	Spring
GSB 104	The Human Experiences - Anthropology	3	-
GSC 104	Moral Decision	-	3
GSD 101	English Composition	3	-
GSD 117	Expository Writing	-	2
GSD 107	Intermediate Algebra	4	-
GSD 153	Public Speaking	2	-
Chem 140a,b	Chemistry (inorganic, organic, and biochemistry)	4	4
Phsl 301	Survey of Human Anatomy	-	4
GSB 202	Introduction to Psychology	-	3
		16	17

Second Year		Fall	Spring
Psyc 305	Psychology of Personality	3	-
Micro 301	Principles of Microbiology	4	-
GSB 203	The Sociological Perspective	4	-
GSC	Select	3	6
HEd 311	Human Growth and Development	3	-
GSA 208,209	Principles of Physiology & Lab	-	4
GSC 208	Elementary Logic	-	3
SOC 340	Family	-	4
		17	17

As soon as possible after advisement for the Fall Semester, freshman year, the student should see Mrs. Goss, Nursing Advisor, to initiate application to the School of Nursing at SIUE. Deadline date is at least three quarters prior to the quarter the student is applying for. After 3 semesters at SIUC, it takes at least 8 quarters to complete the baccalaurate nursing program at Edwardsville.

A grade of "C" or above is required in all Nursing courses, all science courses and nursing prerequisites. Students with an overall 2.5 grade point average (on a 4-point scale) will be considered admissible up to the limit of available space.

Constitution requirement is still required at Edwardsville.

Students who take GSB 104, GSB 202, and GSB 203 will be considered as having fulfilled the Social Studies requirements for the General Studies program at SIUE.

PRE-OPTOMETRY
Preprofessional
(Select Academic Unit)

Patricia Sims, Advisor
Health Professions Information Office
Telephone - 618-536-2147
Neckers A-181

SIUC is able to offer a high quality preparation for pre-optometry students. Although a minimum of sixty semester hours of college courses is required before students can be admitted to optometry school, The Illinois College of Optometry reports that more than half the students admitted in recent years hold a baccalaureate degree. In view of this fact, students may prefer to fulfill requirements for an A.A. degree and postpone some math and science requirements until the third and fourth years.

First Year		Fall	Spring
GSB	Social Studies (select)	-	3
GSC	Humanities (select)	3	-
GSD 101	English Composition	3	-
GSD 117,118or119	Writing (select)	-	2
Chem 222a,b	Introduction to Chemical Principles	4	4
Math 110a,b[1]	College Algebra and Trigonometry	3	2
Zool 220a,b[1]	Diversity of Animal Life	4	4
		17	15

Second Year		Fall	Spring
GSB 202	Introduction to Psychology	3	-
Chem 340, 341[3]	Survey of Organic Chemistry & Lab	6	-
GSD 110 or 112[2]	Statistics	2	-
Phys 203a,b	College Physics	3	3
Phys 253a,b	College Physics Laboratory	1	1
Psych	(select) (Child Psychology recommended)	-	3
Math 150	Calculus I	-	4
Micr 301	Principles of Microbiology	-	4
		15	15

[1]Community college students may substitute general biology if it is a course for science majors and if it includes 3-4 hours per week in laboratory.

[2]Any statistics course taught by business, mathematics, or psychology departments is acceptable.

[3]Students working toward a science degree must take the organic chemistry course required by that major.

Third and Fourth Years

No degree is given in pre-optometry. However, students may complete a major at SIUC before entering optometry school. Choice of a major is up to the students, but additional science and mathematics courses may enhance probabilities of being accepted by the optometry school. If students are accepted prior to earning a bachelor's degree, they have the option of acquiring that degree by taking certain requirements of the professional school or of bypassing the bachelor's degree and earning the doctor of optometry (O.D.) degree only.

On request, the Pre-medical Advisory Committee will evaluate optometry candidates and forward composite recommendations supporting their applications to optometry schools. Details of this procedure and other relevant information are available from the Health Professions Information Office.

Optometry As A Career

Optometry training requires four years in an accredited professional school. The candidates then take a licensing examination.

Career opportunities exist in individual or group practice, in hospitals or eye clinics, in public health agencies, in industrial health programs, and in consultant services to other professions, such as educators in remedial reading, illuminating engineers, or highway safety planners. It is estimated that 25,000 newly trained optometrists will be needed by 1990.

PRE-PHARMACY
Preprofessional
(Select Academic Unit)

Patricia Sims
Health Professions Information Office
Telephone - 618-536-2147
Neckers A-181

Students can achieve excellent preparation for pharmacy school by taking their first year at SIUC, and applying for admission to a pharmacy school in the second (first professional) year of the five year program. Admission to the pharmacy school becomes more difficult when the student is seeking admission as a third year student. The guide below includes courses required for transfer to St. Louis College of Pharmacy or University of Illinois College of Pharmacy. Students should be in direct contact with preferred professional schools for current information.

First Year		Fall	Spring
GSB 203[1]	The Sociological Perspective	-	4
GSC[1]	Literature course (select)	-	3
GSD 101	English Composition	3	-
GSD 117 or 118[2]	Expository or Technical Report Writing	-	2
Chem 222a,b	Introduction to Chemical Principles	4	4
Zool 118[3]	Introductory Zoology	-	4
Bot 200 and 201[3]	General Botany and Lab	4	-
Math 111	College Algebra and Trigonometry	5	-
		16	17

(Students who wish to apply to both pharmacy schools may need to enroll in additional courses during the summer term.)

Second Year		Fall	Spring
GSB 212[1]	Intro. to American Government and Politics	-	4
GSB 202	Introduction to Psychology	-	3
GSD 152 or 153[1]	Interpersonal Communication or Public Speaking	2	-
Chem 344, 346	Organic Chemistry	4	2
Chem 345, 347	Laboratory Techniques	2	3
Phys 203a,b	College Physics	3	3
Phys 253a,b	College Physics Laboratory	1	1
Math 140[2] or	Short Course in Calculus or	4	-
Math 282[1]	Introduction to Statistics	(3)	
		16 (15)	16

[1]Requirement of St. Louis.

[2]Requirement of University of Illinois.

[3]Substitute 8 hours of general biology with laboratory, if available, for zoology and botany courses. NOTE: If pre-pharmacy students plan to spend a second year at SIUC, they must be in touch with a pharmacy school to ascertain current requirements and admission procedures. In addition, the students will probably be required to attend a summer session at the professional school to pick up specialized courses normally taught in the second year. Information concerning other pharmacy schools is available from the Health Professions Information Office.

Third, Fourth and Fifth Years

Students must spend a minimum of three years in the professional school. The degree earned is a Bachelor of Science in Pharmacy. Most states require twelve months of practical experience under the supervision of a registered pharmacist before granting a license. Some of this experience may be accumulated during summer vacations.

Pharmacy As A Career

Students with an aptitude for science and interest in the pharmaceutical field will find that pharmacy offers a variety of careers. The pharmacist may practice in a retail business, in a hospital or clinic or in public health facilities. In industrial pharmacy there are opportunities in research, manufacturing, quality control, administration and sales. Graduate programs are available for pharmacists who seek advancement to careers requiring a master's or doctorate degree.

PRE-VETERINARY MEDICINE

Pre-professional
(Select Academic Unit)

Patricia Sims
Health Professions Information Office
Telephone - 618-536-2147
Neckers A-181

This curriculum is based on the requirements for application to University of Illinois College of Veterinary Medicine. Although students may apply to professional school after two years undergraduate preparation, most accepted students have completed a degree. Students may choose to spread the required pre-veterinary sciences through a third year. If a degree is to be completed, a major may be chosen in either the School of Agriculture or the College of Science.

First Year		Fall	Spring
GSB	Social Studies (select)	-	3
GSD 101	English Composition	3	-
GSD 117, 118 or 119	Writing (select)	-	2
GSE	Human Health and Well Being (select)	1	1
Bot 200, 201[1]	General Botany and Laboratory	-	4
Math 110a,b	College Algebra and Trigonometry	3	2
Zool 118[1]	Introductory Zoology	4	-
GSC	Humanities (select)	-	3
ANI 121	Science of Animals	3	-
ANI 122	Production and Processing Practices	1	-
		15	15

Second Year		Fall	Spring
GSD 152 or 153	Interpersonal Communication or Public Speaking	2(3)	-
GSB	Social Studies (select)	3	3
GSC	Humanities (select)	3	-
GSE	Human Health and Well Being	1	1
Phys 203a,b	College Physics	3	3
Phys 253a,b	College Physics Laboratory	1	1
Biol 305	Genetics-Classical and Molecular	-	3
Chem 222a,b	Introduction to Chemical Principles	4	4
		17-18	15

[1]Community college students should substitute general biology if available for zoology and botany listed. Eight hours of biological sciences (with laboratry experience) suitable for science majors is required.

Third and Fourth Years

Students must complete organic chemistry and biochemistry. In addition to required pre-veterinary courses, there are recommended courses from which the student may choose in accordance with his or her available time. These include Horses, Animal Nutrition, Behavioral Manipulation of Animals, Vertebrate Zoology, Comparative Anatomy, Genetics, Cell Physiology, Environmental Biology, and Organismic Functional Biology.

No degree is given in pre-veterinary studies. Students should choose an academic major in a science or in animal industries and complete its requirements simultaneously with the admission requirements of the veterinary school. Admission is extremely competitive and is usually granted to students with much more than minimum preparation. Most first year veterinary students have four or more years of pre-veterinary education.

Veterinary Medicine As A Career

After acceptance into the professional school, completion of training in veterinary medicine requires four years. Illinois residents are effectively limited to applying to the University of Illinois because other veterinary schools accept residents of their own states or of states having no veterinary school. Competition for available spaces in the professional schools exceeds that for human medical training. With the diversity of offerings at SIUC, however, the pre-veterinary students have an opportunity to develop related or alternate interests at the same time that they are preparing themselves to apply to the veterinary school.

Professional veterinarians have a wide variety of career choices. They may choose small animal practice, livestock disease prevention and control, meat inspection, control of diseases transmitted from animal to man, supervision of interstate movement of animals, or research in animal disease or in drugs used in animal care.

PSYCHOLOGY
College of Liberal Arts
(Bachelor of Arts)

Dr. James McHose, Chairperson
Telephone - 618-536-2301
Life Science, II, 281

The psychology major consists of ten psychology courses including GSB 202 as a requirement and GSA 302 as an elective for a total of 31-33 hours. Finite mathematics is also required. See the catalog for the specific psychology requirements.

First Year		Fall	Spring
GSA	Science (select)[1]	3	-
GSB	Social Science (select)[1]	-	3
GSC	Humanities (select)[1]	-	3
GSD 101	English Composition	3	-
GSD 117,118,119	Writing (select)[1]	-	2
GSD 107	Intermediate Algebra	4	-
GSE	Human Health and Well Being (select)[1]	2	2
Math 139	Finite Mathematics[2]	-	3
Elective[3]		3	3
		15	16

Second Year		Fall	Spring
GSA	Science (select)[1]	3	-
GSB 202	Introduction to Psychology	3	-
GSB	Social Science (select)[1]	-	3
GSC or FL	Humanities (select)[1] or Foreign Language[4]	3(4)	3(4)
GSD	Speech (select)[1]	2(3)	-
Psyc	Psychology Elective	-	3
Elective[3]		3	6
		14(16)	15(16)

[1]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

[2]Besides being a required course for a major in Psychology, Math 139 may be used to partially fulfill the Liberal Arts requirement for students beginning college anywhere Fall 1978 or later. (See College of Liberal Arts section).

[3]Elective hours should be used to explore areas of interest and to enhance career opportunities; or courses may be selected to satisfy Liberal Arts requirements (see College of Liberal Arts section).

[4]Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GSC credit and four hours may be used to complete the thirty hours whch are required from GSA, GSB, or GSC. If no foreign language is required, then the student may choose the GSC option instead.

Psychology As A Major

The major program serves three main classes of students: 1) those who wish an interesting major but who plan no postgraduate academic work, 2) those who plan non-psychology graduate work for which an undergraduate major may be useful (e.g., medical school, social welfare, rehabilitation counseling), and 3) those preparing for graduate work in psychology. As a consequence, the program is aimed at providing broad general education rather than training in specialized psychological skills.

Representative First Job Titles: Alcoholism & Drug Addiction Researcher, Child Behavior Studies Psychologist, Child Placement Studies Psychologist, Child Care Worker, Group Interaction Studies Technician, Group Supervisor or Facilitator, Sales Agent, Mental Deficiency Studies Psychologist, Morale Studies Psychologist (Assistant), Senior Citizens Center (Director), Urban Development (Investigator), Prisoner Classification Interviewer, Probation & Parole Incharge, Public Information Personnel, Public Opinion Polls Officer, Public Relations Personnel, Rehabilitation & Resettlement Personnel, Claims Authorizer, Social Insurance Researcher, Production Supervision, Drug Abuse Counselor, Population Studies Psychologist, Mental Health Clinic Technician.

RADIO-TELEVISION
(Bachelor of Science)
College of Communications and Fine Arts

Dr. H. Eugene Dybvig, Chairperson
Telephone - 618-453-4343
Communications Building, Rm 1056

A major in Radio-Television may be pursued through the College of Communications and Fine Arts. Such a program leads to the Bachelor of Science degree with specializations in programming, management, commercial management, sales, newscasting and special events, production, announcing, and writing. The department's program is designed to prepare the student for a career in one of the several phases of the professional broadcasting industry. The department is closely integrated with the University Broadcasting Service which operates stations WSIU-FM, WUSI-TV, and WSIU-TV with complete and technically professional activities. As part of his or her training, the student is required to achieve actual experiences in the phases of broadcasting. Broadcasting occupations such as directors, producers, announcers, supervisors, technicians, and time salesmen are some of the positions available to graduates.

First Year		Fall	Spring
GSA	Science (select)[1]	-	3
GSB	Social Studies (select)[1]	3	3
GSC	Humanities (select)[1]	3	3
*GSD 101, 117, or 119	English Composition[2] & Expository or Creative Writing[2]	3	2
GSD 153	Speech	2	3
GSE	Human Health and Well Being (select)[1]	1	-
Elective	Electives[3]	4	3
		16	17

Second Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB	Social Studies (select)[1]	-	3
GSC	Humanities (select)[1]	-	3
GSD 107, or 110 or 112	Intermediate Algebra or Statistics	2-4	-
GSE	Human Health and Well Being (select)[1]	2	1
*R&T 300m	R&TV Writing, Performance, Production	4	-
*R&T 300p	R&TV Foundations and Programming	-	4
Elective	Electives[3]	3	3
		14-16	17

*Required courses for a major in Radio-Television.

[1]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

[2]Each student in Radio and Television must by the end of his or her sophomore year either achieve a grade of "B" in both GSD 101 and 117 or 119, or a grade of "C" in English 290 (Advanced Composition).

[3]Students should consult with the department regarding the use of elective hours. There is much variation in the requirements according to the specialization the student selects (general, performance, writing, programming, news and public affairs, television production or radio production).

[4]Radio and Television 300m and p, must each be completed with at least a grade of "C" before any other courses in the Department of Radio and Television are taken.

Radio-Television as A Major

A secondary concentration (minor) is required in a related field.

Radio-Television students must also either demonstrate proficiency in typing at 30 words per minute by passing a test administered by the Department of Secretarial and Business Education, or pass SCR 101A (Typewriting) with a grade of "C."

Representative First Job Titles: Announcer, Set Designer, News and Script Writer, Producer, Director, Station Manager, Sales Representative, Programmer (both commercial and public), Commercial Writer, News Reporter, Lightsman, Traffic and Continuity Director, Music Librarian, ITV Specialist, Floor Director, Electronic News Photographer, Research Assistant, Sports Reporter, Audience Analyst, Public Affairs Specialist.

RECREATION
(Park and Community Recreation)
(Therapeutic Recreation)
(Outdoor Recreation)
(Commercial Recreation Management)
College of Education
(Bachelor of Science)

Dr. William O'Brien, Chairperson
Telephone - 618-453-4331
College View Dorm, 408 W. Mill, Room 21

Coordinator of Teacher Education Services
Telephone - 618-536-2329
Wham Building, Room 108

The Department of Recreation prepares the student for positions in the management of leisure time pursuits.

The curriculum emphasizes the practical as well as the theoretical aspects of recreation by offering practicums, supervised field experiences, and internships in various recreation settings throughout Illinois and the nation.

First Year		Fall	Spring
*GSA 312	Conservation of Natural Resources	-	3
GSA	Science (select)[1,3]	3	-
*GSB 203	The Sociological Perspective	4	-
GSB 202	Introduction to Psychology	-	3
GSC	Humanities (select)[1]	3	3
GSD 101	English Composition	3	-
GSD 117, 118, or 119	Writing (select)[1]	-	2
GSE	Human Health and Well Being (select)[1]	1	1
**Rec 300	Introduction to Leisure and Recreation	3	-
**Rec 302	Recreation Program Leadership	-	3
		17	15

Second Year		Fall	Spring
*GSA 240	Ecology	3	-
*GSA 303	Ferns, Trees and Wildflowers	-	3
*GSB 321	Socialization of the Individual	3	-
GSC	Humanities (select)[1] (additional English required)	3	-
*GSD 110	Economic and Business Statistics[2]	2	-
GSD	Math (select)[1]	4	-
GSD 152 or 153	Interpersonal Communication or Public Speaking	-	3
GSE	Human Health and Well Being (select)[1]	1	-
**Rec 305	Recreation Programming and Leadership	-	3
**HEd 334	Standard First Aid	-	2
Rec	Elective	-	3
		16	17

[1]Refer to section General Studies for the Transfer Student. See also the Undergraduate Catalog for specific departmental requirements.

[2]Students must take GSD 110 or Sociology 308: Statistics for Social Science.

[3]Therapeutic Recreation specialization requires GSA 209, Principles of Physiology.

*Recommended, not required.

**Departmental requirements.

Recreation As A Major

Each student is expected to choose courses which will give a broad background in recreational activities and skills.

Students concentrating in recreation are encouraged to obtain the following certificates: American Red Cross Life Saving and Water Certificate, American Camping Association Campcraft Certificate, workshop certificates in recreation sponsored by the state and national recreation and park associations, and other certificates in instructional areas are desirable in preparation for positions in recreation management.

RELIGIOUS STUDIES
College of Liberal Arts
(Bachelor of Arts)

Dr. John F. Hayward, Chair
Telephone - 618-453-3067
Faner Building, Room 3044

Religious studies interprets whatever a person cares most about as that person's religion. If this kind of caring focuses on God and the church or synagogue, then that religion is one of the traditional types in the western world. Or it could be an eastern type such as Hinduism, Buddism, Yoga, or some psychological expression such as Transcendental Meditation. We also study secular "religious loyalities" such as nationalism, marxism, "the American way of life." In each topic of study we use several methods, historical, psychological, sociological, philosophical, literary. In any case, the university does not promote any one religion; it tries to provide a sympathetic and critical analysis of as many religions as possible, without letting the student's personal preference influence his or her grade.

First Year		Fall	Spring
GSA	Science (select)[1]	3	-
GSB	Social Science (select)[1]	3	3
GSC or FL	Humanities (select)[1] or Foreign Language[2]	3 (4)	3 (4)
GSD 101 & 117, 118 or 119	English Composition and Writing (select)[1]	3	2
GSD	Math (select)[1]	-	4
GSE	Human Health and Well Being (select)[1]	2	2
		14-15	14-15

Second Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB	Social Science (select)[1]	3	-
GSC 216	Types of Eastern Religion[3]	3	-
GSC 217	Types of Western Religion[3]	-	3
GSC	Humanities (select)[1]	-	3
GSD	Speech (select)[1]	2 (3)	-
Math or CS	Mathematics or Computer Science[4]	-	3
Elective[5]		4	3
		15 (16)	15

[1]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

[2]Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GSC credit and four hours may be used to complete the thirty hours which are required from GSA, GSB, or GSC. If no foreign language is required, then the student may choose the GSC option instead. Greek or Hebrew recommended.

[3]Either or both these courses may be taken in the freshman year. They are introductory but not required by the major.

[4]One of these courses may be used to partially fulfill the Liberal Arts requirement for students beginning college anywhere Fall 1978 or later.

[5]Elective hours should be used to explore areas of interest and to enhance career opportunities; or courses may be selected to satisfy Liberal Arts requirements (see College of Liberal Arts section).

Religious Studies As A Major

The primary prerequisite for a major in Religious Studies is not any one course, but rather, a clear interest in the subject. To discover whether such interest exists, a student is advised (a) to take either GSC 216 or 217 or both, plus one elective (preferably RELS 201, 302, 320, or 335) before the end of the Sophomore year; and (b) to confer with the Director of Undergraduate Studies, Faner 3042. In some instances, the department permits a student to receive major credit for courses taken in departments other than Religious Studies.

Representative First Job Titles: Director of Religious Education, Program Director, Editor, Counselor, Journalist.

RUSSIAN*
College of Liberal Arts
(Bachelor of Arts)

Dr. Eugene Timpe - Chairperson
Telephone - 618-536-5571
Faner Building, Room 2166

Programs of study in foreign languages leading to the Bachelor of Arts degree in the College of Liberal Arts (with or without teacher certification) are offered in Classics, French, German, Russian, and Spanish.

Students majoring in a foreign language usually begin at the second or third-year level. The student who has completed two or more years of high school work in French, German, Russian, or Spanish may take a placement/proficiency exam.

In addition to the personal satisfaction and substantial growth in intellectual resources that come with mastery of a new language, there are numerous types of employment and career possibilities that are opened up by appropriate training in foreign languages. These can be classified as: 1) employment in non-language areas where language proficiency is a supporting factor, and 2) language-centered careers. Government agencies (federal, state, and many local), and businesses that have international dealings, employ great numbers of individuals on the basis of skills that are basically non-linguistic (scientists, engineers, librarians, social workers).

First Year		Fall	Spring
GSA	Science (select)[1]	-	3
GSB	Social Science (select)[1]	3	3
GSC	Humanities (select)[1]	3	-
GSD 101 &117, 118 or 119	English Composition and Writing (select)[1]	3	2
Russ 136a,b	Elementary Russian[2]	4	4
GSE	Human Health and Well Being (select)[1]	2	-
GSD	Math (select)[1]	-	4
		15	16

Second Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB	Social Science (select)[1]	-	3
GSC	Humanities (select)[1]	3	-
GSD	Speech (select)[1]	2(3)	-
Russ 201a,b	Intermediate Russian[3]	4	4
GSE	Human Health and Well Being (select)[2]	2	-
Math or CS	Mathematics or Computer Science[4]	-	3
Elective[5]		-	3
		14-15	16

*See also Foreign Language Education under the College of Education.

[1]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

[2]Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GSC credit and four hours may be used to complete the thirty hours which are required from GSA, GSB, or GSC. If no foreign language is required, then the student may choose the GSC option instead. The first year of Russian does not count on the major.

[3]Required by major.

[4]One of these courses may be used to partially fulfill the Liberal Arts requirements for students beginning college anywhere Fall 1978 or later.

[5]Elective hours should be used to explore areas of interest and to enhance career opportunities; or courses may be selected to satisfy Liberal Arts requirements (see College of Liberal Arts section).

Russian As A Major

A major in Russian consists of 36 semester hours in courses above the 100 level with a minimum of 12 hours on the 300 level, 12 hours on the 400 level, and 4 hours of 300 or 400 level Russian electives. FL 436, Methods in Teaching Modern Foreign Languages, is required if the student wishes to be certified to teach. A minor in Russian consists of 18 semester hours in courses above the 100 level.

Transfer students who major in a foreign language must complete a minimum of 12 semester hours in language courses at SIUC.

Representative First Job Titles: Airline Stewardess, Customer Services Personnel, Public Relations Officer, Publications Personnel, Executive Secretary, Announcer, Continuity Writer, Copywriter, Correspondent, Critical Writer, Editorial Writer, Feature Writer, Program Assistant, Reporter, Assistant Librarian, Rewriter, Technical Writer, Educational Television Staff, Manufacturer's Representative, Sales Agent, Recreation Specialist, Interpreter.

SECRETARIAL AND OFFICE SPECIALTIES

School of Technical Careers
(Associate in Art)

Michael Payne
Program Supervisor
Telephone - 618-536-6682
STC Building, Room 106

The business world offers many opportunities for secretarial and office personnel with special interest and intense training in specific areas. Both men and women find this a rewarding career field.

Students in this program are not forced into a mold. They may prepare for the position they want in the field that interests them by creating an individualized program of study. They will gain shorthand and typing proficiency and other office skills through a core of basic courses, and may then draw from a variety of allied health, technical, and business programs to specialize.

Court and conference reporting is offered as a specialized associate degree program. Students combine classroom instruction with actual courtroom experience in the company of an official reporter to qualify to pass the National Shorthand Reporters Association test.

First Year		Fall	Spring
GSD 101	English Composition	3	-
GSD 153	Public Speaking	-	2
or STC 153b	or Conference Methods		
STC 101	Business Correspondence	-	2
or VES 302	or Communication in Business		
Scr 101a,b,c,d	Keyboarding	5	5
Scr 102a,b,c,d	Gregg Shorthand		
or			
Scr 103a,b,c,d	Machine Shorthand	5	5
Scr 104	Machine Transcription	-	3.5
Acct 110	Applied Accounting	-	3
Scr 106	Reprographics	1	-
Scr 107	Filing & Records Management	2	-
Scr 109	Calculating Numerical Information	3	-
		19	20.5

Second Year

A recommended program is stated for students in the following specialties: Court and Conference Reporting, Administrative Assistant, Allied Health/Medical Secretary, Government/Legal Secretary, Education Secretary, Insurance/Real Estate Assistant. The student may choose any other specialty, and a special program will be developed for the student.

A minimum of 67 hours credit is required for the associate degree.

Proficiency tests are available for most Secretarial and Office Specialties courses.

Representative First Job Titles: Legal Secretary, Medical Secretary, Insurance Secretary, International Service Secretary, Engineering Secretary, Technical Secretary, Administrative Secretary, Court Reporter.

SOCIAL STUDIES
College of Education
(Bachelor of Science)

Coordinator of Teacher Education Services
Telephone - 618-536-2329
Wham Building, Room 108

Dr. Billy Dixon, Chairperson
Telephone - 618-453-2239
Wham Building, Room 327

A major in Social Studies may be pursued through the Department of Curriculum, Instruction and Media in the College of Education. Course work includes the areas of history, political science, economics, geography, and anthropology - psychology - sociology. Such a major is designed to prepare individuals for teaching in junior and senior high schools.

First Year		Fall	Spring
GSA	Science (select)[1]	3	-
*GSA 330	Weather	-	3
*GSB 104	The Human Experience: Anthropology	3	-
*GSB 202	Introduction to Psychology	3	-
*GSB 212	Intro. to American Government & Politics	4	-
GSC	Humanities (select)[1]	-	3
GSD 101	English Composition	3	-
GSD 117, 118, or 119	Writing (select)[1]	-	2
GSD 153	Public Speaking	-	3
GSE 201	Healthful Living	-	2
Educ 201	Teacher's Role in Public School Education	-	1
*Pol Sci 213	State and Local Government	-	3
		16	17

Second Year		Fall	Spring
GSA	Science (select)[1]	3	-
*GSB 300	Origins of Modern America, 1492 to 1877	3	-
*GSB 301	Modern America from 1877 to Present	-	3
GSC	Humanities (select)[1]	3	-
GSD	Math (select)[1]	4	-
GSE	Human Health and Well Being--activity	1	1
*Econ 214	Introduction to Macroeconomics	-	4
*Soc 301	Principles of Sociology	-	4
GSC	English Humanities Elective (required)	-	3
Hist	Elective in World History	3	-
		17	15

[1]Refer to the section General Studies for the Transfer Student.

[2]Refer to the Undergraduate Catalog for specific major requirements.

*Required courses in Social Studies.

Required courses for teacher certification include: GSB 202, Introduction to Psychology; GSB 212, Introduction to American Government and Politics, or GSB 300 or 301, U.S. History; GSD 101, English Composition; GSD 117, 118 or 119, Expository, Technical Report or Creative Writing; GSD 153, Public Speaking; GSE 100-114 (2 hours), Physical Education activity; GSE 201, Healthful Living; and one additional English course (GSC, GSD or departmental).

Social Studies As A Major

Students should be aware of requirements for entrance into the Teacher Education Program.

SOCIAL WELFARE
Division of Social and
Community Services
College of Human Resources
(Bachelor of Science)

Dr. Ira Erlich, Coordinator
Telephone - 618-536-5558
Quigley Hall, Room 4

The Social Welfare program at Southern Illinois University offers a professional accredited curriculum which is designed to meet the educational needs of students with career interests in the human services field and leads to a Bachelor of Science degree in Social Welfare. The curriculum provides an interdisciplinary approach to understanding man in contemporary society, basic social problems, and some of the issues associated with the prevention and treatment of these problems. Students are helped to understand the principles and basic skills employed in developing and delivering services to individuals and groups and to communities. Students are prepared for baccalaureate, direct service practice in both rural and urban settings. Positions in child welfare, gerontology, mental health, health services, women's programs, public and private social service agencies are typically available to graduates.

First Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB	Social Science (select)[1]	3	-
GSB 203	Sociological Perspective[2]	-	4
GSC	Humanities (select)[1]	3	3
GSD II3	Mathematics[3]	2	-
GSD II2	Mathematics[3]	-	2
GSD I0I & 117, 118 or 119	English Composition and Writing (select)[1]	3	2
GSE	Human Health and Well Being (select)[1]	1	1
		15	15

Second Year		Fall	Spring
GSA	Science (select)[1]	3	-
GSB	Social Science (select)[1]	-	3
GSB 202	Introduction to Psychology[2]	3	-
GSC	Humanities (select)[1]	-	3
GSD	Speech	-	2(3)
GSE	Human Health and Well Being (select)[1]	1	1
SW 375	Social Welfare as a Social Institution[4]	3	-
SW 380	Methods of Social Work I[4]	-	3
Health Ed 311	Human Growth & Development	-	3
Electives		2	3
		15	15(16)

[1]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the selection, General Studies for the Transfer Student.

[2]Students are required to take these Area B courses.

[3]These 4 hours to include statistics are required for Social Welfare majors rather than Algebra.

[4]These courses are required for a Social Welfare major. For specific information regarding the acceptability of a major requirements from a junior college, Dr. Ira Erlich of the Social Welfare program may be contacted.

Third and Fourth Year

The last two years of a student's program concentrate on specific professional objectives. The student will complete 54 hours in the major area which includes 35 hours in Social Welfare, 10 hours, comprising one course each of Sociology, Psychology and Political Science, and guided electives.

Two of the basic courses in the curriculum are field experiences. In these courses the student attends weekly seminars and works a minimum of 20 hours each week under supervision in an approved social service agency where he/she provides direct services to clients. Placements may be over two semesters half tme, or for one semester full time. Field placements may not begin during summer semester.

Representative First Job Titles: Social Worker, Social Welfare Aide, Rehabilitation Counselor, Casework Assistant, Neighborhood Worker, Residential Welfare Facilitator, School Counselor, Employment Aide, Cooperative Extension Service Worker, Recreation Worker, Alcoholism & Drug Addiction Researcher, Child Placement Agent, Civic Reform Specialist, Community Planning & Redevelopment Expert, Home Economist, Cultural Studies Worker, Probation and Parole.

SOCIOLOGY
College of Liberal Arts
(Bachelor of Arts)

Dr. Jerry Gaston - Chairperson
Telephone - 618-453-2494
Faner Building, Room 3384

The sociology curriculum provides the student with an understanding of social problems, processes, development, structures, institutions and movements and with the concepts and methods used to study them. The sociology major is intended to be part of a broad education which will develop insights and understandings about social arrangements. Its intent is to prepare the student to live a satisfying and meaningful life and to pursue a career in areas where critical insight and breadth of perspective are criteria of success. The areas include a wide range of occupations in government, business and public service. A major in sociology provides a sound background for advanced study not only in sociology and other social behavioral sciences but in social welfare, corrections, recreation, educational administration and other applied fields. It also provides a useful background for professions such as the law and the ministry.

The sociology major requires a minimum of 32 semester hours including Sociology 301 and 12 hours at the 400 level which must include Sociology 497--senior seminar.

First Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB	Social Science (select)[1]	-	3
GSC	Humanities (select)[1]	-	3
GSD 101 & 117, 118 or 119	English Composition and Writing (select)[1]	3	2
GSD	Math (select)[1]	4	-
GSE	Human Health and Well Being (select)[1]	2	2
Math or CS	Mathematics or Computer Science[2]	-	3
Elective[3]		3	-
		15	16

Second Year		Fall	Spring
GSA	Science (select)[1]	3	-
GSB	Social Science (select)[1]	3	3
GSC or FL	Humanities (select)[1] or Foreign Language[4]	3(4)	3(4)
GSD	Speech (select)[1]	2(3)	-
SOC 301	Principles of Sociology[5]	-	4
Elective[3]		3	3
		14-16	13-14

[1]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

[2]One of these courses may be used to partially fulfill the Liberal Arts requirement for students beginning college anywhere Fall 1978 or later.

[3]Elective hours should be used to explore areas of interest and to enhance career opportunities; or courses may be selected to satisfy Liberal Arts requirements (see College of Liberal Arts section).

[4]Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GSC credit and four hours may be used to complete the thirty hours which are required from GSA, GSB, or GSC. If no foreign language is required, then the student may choose the GSC option instead.

[5]Effective Fall 1978, this is a required course for the sociology major.

Sociology As A Major

There are numerous resources available to sociology students including a comprehensive sociology library in Morris Library, statistical laboratories, and computer facilities for those students interested in both humanistic and quantitative sociology. The curriculum provides flexibility in a variety of teaching, learning formats including seminars, individual projects and individual reading courses.

Representative First Job Titles: Area Studies Specialist, Child Behavior Studies Specialist, Child Placement Studies Specialist, Child Welfare Studies Specialist, Civic Reform Studies Specialist, Community Planning & Redevelopment Personnel, Community Relations Personnel, Venereal Disease Investigator, Sales Trainee, Family Welfare Studies, Legal Assistance Officer, Group Interaction Studies, Group Supervisor in Mental Health, Action Volunteer, Minority Groups & Race Relations Studies, Patrolman, Counselor, Institution or Prison, Management Trainee (Corporations), Public Opinion Polls, Probation Parole Officer, Administrative Aide (Gov't.), Child are Worker, Claims Authorizer, Social Stratification Analyst.

SPANISH*
College of Liberal Arts
(Bachelor of Arts)

Dr. Eugene Timpe - Chairperson
Telephone - 618-536-5571
Faner Building, Room 2166

Programs of study in foreign languages leading to the Bachelor of Arts degree in the College of Liberal Arts (with or without teacher certification) are offered in Classics, French, German, Russian, and Spanish.

Students majoring in a foreign language usually begin at the second or third-year level. The student who has completed two or more years of high school work in French, German, Russian, or Spanish may take a placement/proficiency exam.

In addition to the personal satisfaction and substantial growth in intellectual resources that come with mastery of a new language, there are numerous types of employment that are opened up by appropriate training in foreign languages. These can be classified as: 1) employment in non-language areas, and 2) language-centered careers. Government agencies (federal, state, and many local), and businesses that have international dealings, employ great numbers of individuals on the basis of skills that are basically non-linguistic (scientists, engineers, librarians, social workers).

First Year		Fall	Spring
GSA	Science (select)[1]	-	3
GSB	Social Science (select)[1]	3	3
GSC	Humanities (select)1	3	-
GSD 101 & 117, 118 or 119	English Composition and Writing (select)[1]	3	2
Span 140a,b	First-year Spanish[2]	4	4
GSE	Human Health and Well Being (select)[1]	2	-
GSD	Math (select)[1]	-	4
		15	16

Second Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB	Social Science (select)[1]	-	3
GSC	Humanities (select)[1]	3	-
GSD	Speech (select)[1]	2(3)	-
Span 201a,b	Second-year Spanish[3]	3	3
Span 220a,b	Spanish Conversation[4]	2	-
Math or CS	Mathematics or Computer Science[5]	-	3
GSE	Health and Well Being (select)[1]	-	3
Elective[6]		15(16)	15

*See also the program under the College of Education. [1]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

[2]Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GSC credit and four hours may be used to complete the thirty hours which are required from GSA, GSB, or GSC. If no foreign language is required, then the student may choose the GSC option instead. The first year of Spanish does not count on the major. Spanish 175-5 may substtute for 140 a,b.

[3]Required by the major. Spanish 275-5 may substitute for 201 a,b.

[4]Only one semester of Intermediate Conversation may count towards the major.

[5]One of these courses may be used to partially fulfill the Liberal Arts requirement for students beginning college anywhere Fall 1978 or later.

[6]Elective hours should be used to explore areas of interest and to enhance career opportunities; or courses may be selected to satisfy Liberal Arts requirements (see College of Liberal Arts section). Spanish As A Major
A major in Spanish consists of 36 semester hours in courses above the 100 level with at least 10 hours on the 300 level and 12 hours on the 400 level. At least one course in the history of Spain or Latin America is recommended for all students majoring in Spanish but the course may not be counted toward the major. A summer travel-study program in Mexico is available.

A minor in Spanish consists of 18 hours in courses above the 100-level.

Transfer students who major in a foreign language must complete a minimum of 12 semester hours in language courses at SIUC.

Representative First Job Titles: Airline Stewardess, Customer Services Personnel, Public Relations Officer, Publications Personnel, Executive Secretary, Announcer, Continuity Writer, Copywriter, Correspondent, Critical Writer, Editorial Writer, Feature Writer, Program Assistant, Reporter, Assistant Librarian, Rewriter, Technical Writer, Educational Television Staff, Manufacturer's Representative, Sales Agent, Recreation Specialist, Interpreter.

SPECIAL EDUCATION

College of Education
(Bachelor of Science)

Coordinator of Teacher Education Services
Telephone - 618-536-2329
Wham Building, Room 108

Dr. David Sabatino, Chairperson
Telephone - 618-453-2311
Pulliam Hall, Room 127

In the Department of Special Education, teachers are prepared to work with behaviorally disordered, mentally retarded, and learning disabled children. Students seeking the Standard Special Certificate will complete a 120 semester hour program leading to approval in one of the three handicap areas listed above. Students who wish to obtain joint certification in special education and elementary education must complete a 144 to 149 hour program.

First Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB	Social Studies (select)[1]	3	-
GSC 100	Music Understanding	2	-
GSC 101	Introduction to Art	-	3
GSD 101	English Composition	3	-
GSD 117 or 119	Expository or Creative Writing	-	2
Math 114	Algebraic & Arithmetic Systems	4	-
GSE 201	Healthful Living	-	2
GSE	Human Health and Well Being (select)[1]	-	2
Ed 201	Teacher's Role in Public Education	-	1
Electives		-	3
		15	16

Second Year		Fall	Spring
GSA	Science (select)[1]	3	-
GSB 202	Introduction to Psychology	3	-
GSD 300 or 301	U. S. History	-	3
GSC	Humanities (select)[1]	3	-
GSC	Literature (select)[1]	-	3
GSD 153	Public Speaking	2	-
Ed 301	Human Growth, Development, and Learning	-	2
Mus 101	Music Fundamentals	2	-
Mus 302	Music in Special Education	-	2
Math 314	Topics in Mathematics for Elementary Teachers	3	-
GSB 212	Intro. to American Government & Politics	-	4
		16	14

[1]Refer to the section General Studies for the Transfer Student.

Special Education As A Major

To include the following required courses: GSB 202, Introduction to Psychology; GSB 212, American Government OR GSB 300 or 301, History of the United States; GSC 100, Music Understanding; GSC 101, Introduction to Art, or GSC 205, Innovation for the Contemporary Environment; Music 101, Fundamentals of Music for GSC (substitution); GSD 101, English Composition; GSD 117, 118 or 119, Expository, Technical or Creative Writing; GSD 153, Public Speaking; and one additional English course (GSC, GSD or departmental).

SPEECH COMMUNICATION
(Communication Arts & Studies)
College of Communications and
Fine Arts
(Bachelor of Science)

Dr. Edward McGlone, Chairperson
Dr. Randall Bytwerk, Advisement
Telephone - 618-453-2291
Communications Bldg, Room 2002

A major in the Department of Speech Communication provides the undergraduate with a substantial background in the history, theory, and application of verbal and nonverbal communication. The program specializations are designed to develop the language and personal skills for professional, artistic, and intructional careers in human communication; to explore the social and cultural implications of human interaction; to compare the aesthetic and instrumental nature of oral communication; and to provide cosmopolitan and diverse opportunities for the study of and training for communication as personal perception and expression. A degree in speech communication enables the student to secure employment in a variety of professions. General Speech and Public Relations majors are fully prepared to accept positions in such areas as advertising, market research, corporate and consumer relations, all levels of government administration, and related agency work. Traditionally, speech communication majors pursue careers in such fields as law, personnel management, politics, career diplomacy, social work, professional negotiation and arbitration, artistic performance, business and industry.

First Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB	Social Studies (select)[1]	3	3
GSC	Humanities (select)[1]	3	-
*GSC 200	Oral Interpretation of Literature	-	3
GSD 101	English Composition	3	-
GSD 117, 118 or 119	Writing (select)[1]	-	2
GSD 152 or 153	Interpersonal Communications or Public Speaking	-	2 (3)
GSE	Human Health and Well Being - Activity	1	1
Electives		3	3
		16	17 (18)

Second Year		Fall	Spring
GSA	Science (select)[1]	-	3
GSB	Social Studies (select)[1]	3	-
GSC	Humanities (select)[1]	3	-
GSD	Mathematics (select)[1]	-	4
GSE	Human Health and Well Being(select)[1]	1	1
*Spch 221	Advanced Public Speaking	3	-
*Spch 230	Introduction to Speech Education	3	-
*Spch 262	Interpersonal Communication II	-	3
Electives		2	4
		15	15

*Departmental requirements.

[1]Refer to section General Studies for the Transfer Student.

Speech Communication As A Major

No minor required; no foreign language required.

The Speech Communication Department utilizes direct advisement of all new, transfer, and continuing students.

Graduate degrees (M.A., M.S., and Ph.D.) are available in Speech Communication. Students choose electives to build desired specialization.

Representative First Job Titles: Interpreter, Technical Writer, Visitors' Guide, Communications Specialist, Advertising Agent, Editor, Public Information Officer, Public Relations Officer, Publications Staff, Personnel Interviewer, Publicity Staff, Newspaper Reporter, Radio Announcer, Speech Writer, Manufacturer's Representative, Salesperson, Newscaster, Television Announcer.

SPEECH COMMUNICATION
(Communication Education)
College of Communications and Fine Arts
College of Education
(Bachelor of Science)

Dr. Edward McGlone, Dept. Chairperson
Dr. Randall Bytwerk, Advisement
Telephone - 618-453-2291
Communications Building, Room 2002

Coordinator of Teacher Education Services
Telephone - 618-536-2329
Wham Building, Room 108

A major in the Department of Speech Communication provides the undergraduate with a substantial background in the history, theory, and application of verbal and nonverbal communication. The program specializations are designed to develop the language and personal skills for professional, artistic, and intructional careers in human communication; to explore the social and cultural implications of human interaction; to compare the aesthetic and instrumental nature of oral communication; and to provide cosmopolitan and diverse opportunities for the study of and training for communication as personal perception and expression. A degree in speech enables the student to secure employment in a variety of professions. Communication Education majors are successfully placed as teachers from sixth grade through senior high school.

First Year		Fall	Spring
GSA	Science (select)[1]	3	3
*GSB 202	Introduction to Psychology	3	-
*GSB 212	American Government and Politics	-	4
*GSC 203	Introduction to Theater	3	-
*GSC 200	Oral Interpretation of Literature	-	3
GSD 101	English Composition	3	-
GSD 117, 118 or 119	Writing (select)[1]	-	2
*GSD 153 or 152	Public Speaking or Interpersonal Communication	-	3 (2)
GSE	Human Health and Well Being--Activity	1	1
*GSE 201	Healthful Living	2	-
*ED 201	Teacher's Role in Public School Education	1	-
		16	16 (15)

Second Year		Fall	Spring
GSA	Science (select)[1]	3	-
GSB	Social Studies (select)[1]	-	3
GSC	Humanities (select)[1]	-	3
GSD	Mathematics (select)[1]	4	-
*Spch 221	Advanced Public Speaking	3	-
*Spch 230	Introduction to Speech Communication	3	-
*Spch 261	Small Group Communication	-	3
*Spch 262	Interpersonal Communication II	-	3
Electives		3	3
		16	15

*Departmental requirements.

1 Refer to section General Studies for the Transfer Student.

College of Education requires for certification: GSB 202; GSB 212 or 300, GSD 101, GSD 117, 118 or 119, GSD 153, GSE 100-114 (2 hours), GSE 201, and one additional English course from GSC, GSD or department.

Speech Communication As A Major

A student interested in the major should be aware of the requirements for entrance into the Teacher Education Program. The Speech Communication Department utilizes direct advisement of all new, transfer, and continuing students.

SPEECH COMMUNICATION
(Oral Interpretation)
College of Communications and
Fine Arts
(Bachelor of Science)

Dr. Edward McGlone, Chairperson
Dr. Randall Bytwerk, Advisement
Telephone - 618-453-2291
Communications Bldg, Rm 2002

A major in the Department of Speech Communication provides the undergraduate with a substantial background in the history, theory, and application of verbal and nonverbal communication. The program specializations are designed to develop the language and personal skills for professional, artistic, and intructional careers in human communication; to explore the social and cultural implications of human interaction; to compare the aesthetic and instrumental nature of oral communication; and to provide cosmopolitan and diverse opportunities for the study of and training for communication as personal perception and expression. A degree in speech communication enables the student to secure employment in a variety of professions. Oral Interpretation majors often pursue careers in theatre, radio and television entertainment, publishing companies, literary criticism, writing, and education. Traditionally, speech communication majors pursue careers in such fields as law, personnel management, politics, career diplomacy, social work, professional negotiation and arbitration, artistic performance, business and industry.

First Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB	Social Studies (select)[1]	-	3
*GSB 202	Introduction to Psychology	3	-
GSC	Humanities (select)[1]	3	-
*GSC 200	Oral Interpretation of Literature	-	3
GSD 101	English Composition	3	-
GSD 117, 118 or 119	Writing (select)[1]	-	2
GSD 152 or 153	Interpersonal Communication or Public Speaking	-	2 (3)
*GSE 103d	Dance (Beginning Contemporary)	2	-
Electives		3	3
		17	16 (17)

Second Year		Fall	Spring
GSA	Science (select)[1]	3	-
GSB	Social Studies (select)[1]	3	-
GSC	Humanities (select)[1]	-	3
GSD	Mathematics (select)[1]	-	4
GSE	Human Health and Well Being - Activity	-	2
*Spch 221 or 261	Advanced Public Speaking or Small Group Communication	3	-
*Spch 262	Interpersonal Communication II	3	-
*Thea 303	Voice and Diction	2	-
*Thea 207	Fundamentals of Theatrical Design	-	2
*Eng Lit	Recommended by Department	-	3
Electives		3	3
		17	17

*Departmental requirements.

[1]Refer to section General Studies for the Transfer Student.

Oral Interpretation (Speech) As A Major

No minor required; no foreign language required. The Speech Communication Department utilizes direct advisement of all new, transfer, and continuing students.

Graduate degrees are available in Speech Communication. Students choose electives to build desired specialization.

Representative First Job Titles: Interpreter, Technical Writer, Visitors' Guide, Communicatios Specialist, Advertising Agent, Editor, Public Information Officer, Public Relations Officer, Publications Staff, Personnel Interviewer, Publicity Staff, Newspaper Reporter, Radio Announcer, Speech Writer, Manufacturer's Representative, Salesperson, Newscaster, Television Announcer.

SPEECH COMMUNICATION

(Public Relations)
College of Communications and Fine Arts
(Bachelor of Science)

Dr. Edward McGlone, Chairperson
Dr. Michael Parkinson, Advisement
Telephone - 618-453-2291
Communications Bldg., Room 2002

A major in the Department of Speech Communication provides the undergraduate with a substantial background in the history, theory, and application of verbal and nonverbal communication. The program specializations are designed to develop the language and personal skills for professional, artistic, and intructional careers in human communication; to explore the social and cultural implications of human interaction; to compare the aesthetic and instrumental nature of oral communication; and to provide cosmopolitan and diverse opportunities for the study of and training for communication as personal perception and expression. A degree in speech communication enables the student to secure employment in a variety of professions. General Speech and Public Relations majors are fully prepared to accept positions in such areas as advertising, market research, corporate and consumer relations, all levels of government administration, and related agency work. Traditionally, speech communication majors pursue careers in such fields as law, personnel management, politics, career diplomacy, social work, professional negotiation and arbitration, artistic performance, business and industry.

First Year		Fall	Spring
GSB 212	Intro. to American Gov't & Politics	-	4
GSA	Science (select)[1]	3	3
*GSB 202	Introduction to Psychology	3	-
GSC	Humanities (select)[1]	3	3
GSD 101	English Composition	3	-
GSD 117, 118 or 119	Writing (select)[1]	-	2
*GSD 153 or 152	Public Speaking or Interpersonal Communication	2 (3)	-
GSE	Human Health and Well Being - Activity	1	1
ECON 214	Macroeconomics	-	3
		15	16

Second Year		Fall	Spring
GSA	Science (select)[1]	3	-
*ACCT 210	Accounting Principles and Control	3	-
GSC	Humanities (select)[1]	-	3
GSD	Mathematics (select)[1]	4	-
GSE	Human Health and Well Being - Activity	2	-
*Spch 326	Persuasion	-	3
*R&T 300m	Radio-Television Writing Performance Production	-	4
*Jrnl 300	Mass Media in Modern Society	-	3
*Jrnl 310	Writing for the Mass Media	-	3
Spch 280	Business & Professional Communication	3	-
		15	16

*Departmental requirements.

[1]Refer to section General Studies for the Transfer Student.

Note: Students must demonstrate proficiency in typing at least 30 words per minute.

Public Relations (Speech) As A Major

The public relations specialization is an interdisciplinary program with a focus on communication studies designed with the assistance of and approved by the Public Relations Society of America. The Speech Communication Department uses direct advisement of all new, transfer, and continuing students.

Membership in the Raymond D. Wiley Chapter of the Public Relations Student Society of America provides opportunities for internships, field trips, job placement, involvement in on and off campus public relations projects and association with professional practitioners.

Representative First Job Titles: Interpreter, Technical Writer, Visitors' Guide, Communications Specialist, Advertising Agent, Editor, Public Information Officer, Public Relations Officer, Publications Staff, Personnel Interviewer, Publicity Staff, Newspaper Reporter, Radio Announcer, Speech Writer, Manufacturer's Representative, Salesperson, Newscaster, Television Announcer.

SPEECH COMMUNICATION
College of Liberal Arts
(Bachelor of Arts)

Dr. Ed McGlone - Chairperson
Telephone - 618-453-2291
Communications Building, Rm 2002

A major in speech is obtainable from the Department of Speech Communication, through the College of Communications and Fine Arts, College of Liberal Arts, or the College of Education. Courses offered by the Speech Communication Department include principles of speech, phonetics, semantics, discussion, argumentation and debate, persuasion, public address, the oral interpretation of prose and poetry, public relations, and interpersonal communications. Majors in this area may find positions in many phases of business and industry, particularly those relying on the effective communication of ideas and information.

First Year		Fall	Spring
GSA	Science (select)[1]	3	-
GSB	Social Science (select)[1]	3	3
GSC	Humanities (select)[1]	-	3
GSD 101 & 117, 118 or 119	English Composition and Writing (select)[1]	3	2
GSD I52 or I53	Interpersonal Communication or Public Speaking[1]	2(3)	-
GSD	Math (select)[1]	-	4
GSE	Human Health and Well Being (select)[1]	2	2
Elective[2]		2	-
		15-16	14

Second Year		Fall	Spring
GSA	Science (select)[1]	3	3
GSB	Social Science (select)[1]	-	3
GSC 200	Oral Interpretation of Literature	3	-
GSC or FL	Humanities (select)[1] or Foreign Language[4]	3(4)	3(4)
Sp 22I	Advanced Public Speaking[3]	3	-
Sp 26I	Small Group Communication	-	3
Math or CS	Mathematics or Computer Science[5]	3	-
Elective[2]		-	3
		15-16	15-16

*This is not a professional concentration, but a liberal arts concentration. See also the programs under the College of Communications and Fine Arts and the College of Education.

[1]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

[2]Elective hours should be used to explore areas of interest and to enhance career opportunities; or courses may be selected to satisfy Liberal Arts requirements (see College of Liberal Arts section).

[3]Required by the major.

[4]Two semesters (which is generally eight hours) or a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GSC credit and four hours may be used to complete the thirty hours which are required from GSA, GSB, or GSC. If no foriegn language is required, then the student may choose the GSC option instead.

Representative First Job Titles: Interpreter, Technical Writer, Visitors' Guide, Communications Specialist, Advertising Agent, Editor, Public Information Officer, Public Relations Officer, Publications Staff, Personnel Interviewer, Publicity Staff, Newspaper Reporter, Radio Announcer, Speech Writer, Manufacturer's Representative, Salesperson, Newscaster, Television Announcer.

SPEECH PATHOLOGY AND AUDIOLOGY
(Clinical Specialization)
(Public School Specialization)
College of Communications and
Fine Arts
(Bachelor of Science)

Stephen Blache, Chairperson
Telephone - 618-453-4301
Communications Bldg., Rm 1003

The program in speech pathology and audiology has as its objective the training of qualified personnel to work with people impaired in either speech or hearing. The undergraduate curriculum is broad in scope and gives the student the necessary background for the professional program offered at the master's level. Both state and national certification require the master of science degree.

First Year		Fall	Spring
GSA 115	Biology	3	-
GSA 209	Principles of Physiology	-	3
GSB 202	Introduction to Psychology	3	-
GSB 203	The Sociological Perspective	3	-
GSC	Humanities (select)[1]	3	3
GSA, GSB, or GSC	Select[1]	-	3
GSD 101	English Composition	3	-
GSD 107	Intermediate Algebra	-	4
GSE 201	Healthful Living	-	2
		15	15

Second Year		Fall	Spring
GSA	(select)[1]	3	-
GSB 206	Applied Child Development	3	-
GSC	(select)[1]	3	-
GSD 152 or 153	Interpersonal Communication or Public Speaking	-	2-3
GSE	Human Health and Well Being (select)[1]	1	1
GSD 117	Expository Writing	2	-
PSYC 301	Child Psychology	-	3
SP&A 200	Phonetics	3	-
SP&A 203	Introduction to Speech Science	-	3
SP&A 205	Introduction to Speech Pathology	-	3
ED 201 or PSYCH 211	Teacher's Role in Public Education[2] or Research Methods in Psychology[3]	-	1 + 2
		1	(4)
		15	15-17

[1]Refer to section: General Studies for the Transfer Student.

[2]Public School Specialization, plus 2 hours of GS elective credit.

[3]Substitute for Clinical Specialization.

Preparation for teacher certification should include the following courses taught via General Studies: GSB 202, Introduction to Psychology; GSB 212 or GSB 300 or 301; GSD 101; GSD 117 or 118 or 119; GSD 153; GSE 100-114 (2 hours); and one additional English course from GSC, GSD or department.

Speech Pathology and Audiology As A Major

Clinical experience is obtained for all students through work at the University's Clinical Center, the public schools in student teaching, special summer programs, the Marion Veterans Administration Hospital, A.L. Bowen Children's Center, the Anna State Hsopital and area hospitals.

Students will be encouraged to plan programs of study to meet academic and praticum requirements for the Certificate of Clinical Competence of the American Speech and Hearing Association and the Standard Special Certificate - Certificate in Speech and Language Impaired.

Representative First Job Titles: Rehabilitation Officer, Community Speech & Hearing Centers Worker, Private Consultant, Psychiatric Aide, Research Center Technician, Therapeutic Technician, Child Behavior Specialist, Child Welfare Specialist, Hearing Aids Specialist, Physical Retardation Specialist, Diagnostic Technician, Treatment Evaluator, Therapy Programmer, Researcher.

SPEECH PATHOLOGY AND AUDIOLOGY
(Public School Specialization)
College of Education
(Bachelor of Science)

Stephen Blache, Chairperson
Telephone - 618-453-4301
Communications Building, Room 1003

Coordinator of Teacher Education Services
Telephone - 618-536-2329
Wham Building, Room 108

The program in speech pathology and audiology has as its objective the training of qualified personnel to work with people impaired in either speech or hearing. The undergraduate curriculum is broad in scope and gives the student the necessary background for the professional program offered at the master's level. Both state and national certification require the master of science degree.

First Year		Fall	Spring
GSA 115	Introduction to Biology	3	-
GSA 209	Principles of Physiology	-	3
GSB 202	Introduction to Psychology	3	-
GSB 203	The Sociological Perspective	4	-
GSC	Humanities (select)[1]	3	3
GSA, GSB, or GSC	Select[1]	-	3
GSD 101	English Composition	3	-
GSD 107	Intermediate Algebra	-	4
GSE 201	Healthful Living	-	2
		16	15

Second Year		Fall	Spring
GSB 212, 300 or 301	American Government or U.S. History	-	3 (4)
GSA	Select[1]	3	-
GSB 206	Applied Child Development	3	-
GSC	English, Elective in Humanities	3	-
GSD 152 or 153	Interpersonal Communication Public Communication	-	2
GSE	Human Health and Well Being (select)[1]	2	-
GSD 117	Expository Writing	2	-
Psyc 301	Child Psychology	-	3
SP&A 200	Phonetics	3	-
SP&A 203	Introduction to Speech Science	-	3
SP&A 205	Introduction to Speech Pathology	-	3
Ed 201	Teacher's Role in Public Education	-	1
Elective		-	2
		15	15

[1]Refer to section: General Studies for the Transfer Student.

Preparation for teacher certification should include the following courses taught via General Studies: GSB 202, Introduction to Psychology; GSB 212 or GSB 300 or 301; GSD 101; GSD 117 or 118 or 119; GSD 153; GSE 100-114 (2 hours); GSE 201, Healthful Living; and one additional English course from GSC, GSD or department.

Speech Pathology As A Major

Clinical experience is obtained for all students through work at the University's Clinical Center, the public schools in student teaching, special summer programs, the Marion Veterans Administration Hospital, A. L. Bowen Children's Center, the Anna State Hospital and area hospitals.

Students will be encouraged to plan programs of study to meet academic and practicum requirements for the Certificate of Clinical Competence of the American Speech and Hearing Association and the Standard special Certificate - Certificate in Speech and Language Impaired.

TECHNICAL CAREERS
School of Technical Careers
(Bachelor of Science)

Director, Division of Baccalaureate Studies
School of Technical Careers
Telephone - 618-536-6682
STC Building, Room 126

The Baccalaureate Studies program in technical careers is designed for individuals, college age or older, who are following a career path for which there is no existing program leading to the bachelor's degree. More specifically, it is designed for students who have completed an occupational associate degree (or its equivalent) and who would like to add to or broaden their career preparation. It allows the career-oriented student to design an individualized course of study that exactly fits the individual's educational needs.

Unlike conventional programs, the STC baccalaureate studies program has no established curriculum or required courses. With the help of an STC baccalaureate faculty member, each student designs a program of study to give the preparation needed for advancing in a particular field.

In preparing a program of study, a student may choose courses from any of the undergraduate colleges and schools at SIUC. For example, a student with an associate degree in automotive technology who wishes to work in automotive service management may include courses in small business management, business law, management and supervision, personnel psychology, and applied accounting. A student with an associate degree in commercial graphics who wishes to be a writer and illustrator of children's books may design a curriculum which includes courses in art, children's literature, creative writing, and child psychology.

In addition to admission to SIUC, the student must meet these requirements in order to be admitted to the individualized baccalaureate studies program:

Have completed at least two terms of post-secondary education
Have an approved learning contract on file with the program
Special approval if more than 90 semester hours of post-secondary education have been accomplished

Requirements for the Bachelor of Science degree in technical careers include:

Complete two years of study (approximately 60 hours) beyond the occupational associate degree, including all SIUC baccalaureate degree requirements
Complete the requirements listed in the learning contract
Obtain credit for approved work experience or internship
Be enrolled in the baccalaureate studies program for at least two terms

In addition to being able to design individualized courses of study, it also is possible for students to receive credit for previous civilian and military work experience as well as for military schools. This experience, of course, must be related to the career goal.

Because each student's program is individualized, it is not possible to give a detailed curriculum each student will follow. The general model, however, is as follows:

Associate Degree Courses (at community college) 60 hours
(Associate degree can be in almost occupational field, from Allied Health to Welding)

Baccalaureate Courses (at SIUC)		Capstone		Regular General Studies	
1.	General Studies	approx.	25	approx.	30
2.	Secondary Concentration (career-related courses taken beyond the associate degree)	minimum of	30	minimum of	18
3.	Internship		6		6
4.	Electives	approx.	9	approx.	6
	Total		60		60

Admission to the STC baccalaureate studies program does not imply admission to any STC associate degree program. Students who wish to take courses in an associate degree program, must also apply for admission to that program.

Because the STC baccalaureate program takes a limited number of students, early application is advisable.

THEATER[1]
(Acting-Directing Option)
(Design-Technical Option)
(Playwriting-Dramatic Literature Option)
College of Communications and Fine Arts
(Bachelor of Arts)

Darwin Payne, Chairperson
Ronald Travis, Advisor
Telephone - 618-453-5741
Communications Bldg, Room 1033

Instruction and training in all phases of dramatic production for the stage and in basic techniques for dramatic production in television, radio, and motion pictures are provided.

Education for dramatic production entails (1) training and practice in acting, directing, and technical production (stage management, crew work, the planning and execution of costumes, lighting, and scenery); (2) understanding of the essential nature of theater art through study of theater esthetics, history, and criticism; (3) survey of theater management practice; (4) a study of the principles and techniques of playwriting and; (5) a knowledge of dramatic literature.

First Year		Fall	Spring
GSA	Science (select)[2]	3	-
GSB	Social Studies (select)[2]	3	3
GSD 101	English Composition	3	2
GSD 152	Interpersonal Communications	2	-
GSD 107 or 110 or 112	Intermediate Albebra or Statistics[2] (select one)	-	4 (2)
GSE	Human Health and Well Being (select)[2]	2	2
*Thea 303	Voice and Diction	3	3
		16	14 (12)

Second Year		Fall	Spring
GSA	Science (select)[2]	3	3
GSB	Social Studies (select)[2]	3	-
GSC	Humanities (select)[2]	-	3
*Thea 218a,b	Staging Techniques	6	3
*Thea 213	Stage Movement	3	2
*Thea 207	Fundamentals of Theatrical Design	2	-
Electives[3]		-	6
		17	17

*Required courses for a major in Theater.

[1]See also the programs under the College of Liberal Arts.

[2]To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Studies for the Transfer Student.

[3]Students should consult with the department regarding the selection of courses to fullfill this requirement.

Theater As A Major

No minor is required. Graduate degrees available.

The University Theater, under the supervision of the Theater faculty, produce each year four full-length plays, and three programs of original one-acts. Each summer a resident stock company produces a playbill in the air-conditioned University Theater.

Many opportunities for practical experience with more production activity than most theater departments.

A few tuition scholarships are available.

Students can participate in the production of new plays.

Numerous opportunities available to see Broadway touring shows brought to campus.

Representative First Job Titles: Illustrator, Recreation Specialist, Costume Designer, Visual Information Specialist, Sound Effect Technician, Theater Drafting Technician, Make-up Specialist, Sales (Magazine), Lighting Effect Technician, Scenery Specialist, Crew Worker in the Television, Crew Worker in the Motion Picture, Costume Specialist, Performing Artist, Folk Dancer, Ballet Dancer, Choreographer (Dance Composer), Assistant to the Dance Director, Assistant to the Play Director, Theater Management Staff, Educational Television Staff, Children's Program Specialist, Modern Dancer, Understudies Artist.

TOOL AND MANUFACTURING TECHNOLOGY
(NUMERICAL CONTROL)
School of Technical Careers
(Associate in Applied Science)

H. R. Soderstrom
Program Coordinator
Telephone - 618-985-4110
STC Carterville Campus

More and more technicians are needed because of the growing array of automated and numerically controlled machines. The tool and manufacturing curriculum is designed specifically to do just this: prepare the student in specific technical areas that are in great need of trained and skilled people. The tool and manufacturing curriculum furnishes technical information in tool making, metallurgy, statics, strength of material, numerical and electric controls, manufacturing processes, process planning, and machinability of metals.

First Year		Fall	Spring
GSB 101	English Composition	-	3
GSB 202	Introduction to Psychology		
or			
GSB 212	Intro to American Government & Politics	-	3-4
STC 105a,b	Technical Mathematics	4	-
TT 101	Basic Tool and Manufacturing Lab	7	-
TT 102	Milling Machine and Grinding Lab	-	7
TT 125	Introduction to Machine Tools	3	-
TT 126	Machinability of Metals, Milling, and Abrasive Machining	-	3
TT 128	Hydraulics and Pneumatic Control	2	-
TT 185, 186	Technical Drawing I & II	4	4
		20	20 (21)

Second Year		Fall	Spring
EDP 208a	Numerical Control Programming	4	-
STC 102	Technical Report Writing		
or			
STC 153	Conference Methods	-	2
STC 107a,b	Applied Physics	4	-
TT 210	Numerical Control, Electrical Discharge Machining, and Tool and Die	7	-
TT 211	Advanced Numerical Control, Tool and Die, and Production Machining	-	7
TT 220	Numerical Control, Inspection Practice, and Electrical Discharge	3	-
TT 221	Tool and Die, Production Machining, & Process Planning	-	3
TT 275	Ferrous Metallurgy	2	-
TT 276	Tool Steel Metallurgy	-	2
TT 225	Manufacturing Processes	-	2
		20	16

Tool And Manufacturing Technology As A Major
This program provides knowledge and abilities for industries requiring engineering technicians. Graduates accept jobs as part programmers of numerical control machines, laboratory technicians, planners, methods and quality control technicians, expediters, tool and die technicians, tool room technicians, and tool room supervisors.

Emphasis is on modern machine tools and accessories, numerical control machines, production set-ups and tooling, jigs and fixtures, dies, and methods for efficient and economical production and manufacture of industrial products and machines.

Also included are courses detailing with the properties and heat treatment of metals, mathematics, technical drawing, technical writing, oral communications, and the human relations aspects of our American industrial life.

The student in this program will have the advantage of courses in data processing that will give him or her the ability to work with computer-assigned programming for numerical controlled machines.

He or she will learn to design and test industrial, electrical, hydraulic, and pneumatic power circuits; to read blueprints, design basic jigs and fixtures, make shop sketches, and alter existing machines for structural changes; and to build basic progressive dies, draw dies, die casting dies, and plastic injection mold dies.

The graduate will have the technical background to work with engineers in research, development and testing, plus skills in metal cutting that will give him or her the abilities of a tool maker.

Representative First Job Titles: Machinist, Tool & Die Maker, Model Maker, Engineering Technician, Maintenance Worker, Prototype Builder.

ZOOLOGY
College of Education
(Bachelor of Science)

Coordinator of Teacher Education Services
Telephone - 618-536-2329
Wham Building, Room 108

A curriculum developed in zoology provides one with a knowledge of animals, their biology and conservation. The 22 faculty members of the Department of Zoology represent a wide range of these professional zoological disciplines. A wide variety of courses is offered in the biologically rich and diverse environment of Southern Illinois with excellent study facilities in a new $11 million life science building equipped with specialized laboratories, computer facilities, research museum, and animal quarters. Associated are the Cooperative Fisheries and Wildlife Laboratories which make important contributions to the education of many undergraduates.

The department's faculty and graduate students provide personal opportunities for student introduction to interesting specialities. This is augmented by the unique INDIVIDUALIZED CURRICULUM prepared for each student majoring in zoology. Arrangements are made through the Director of Undergraduate Studies for each student to select a faculty advisor to plan with him or her a specific program of courses in zoology and supporting areas (usually other biological sciences, math and chemistry).

First Year		Fall	Spring
GSB 212, 300, or 301	American Government or U. S. History	4	-
GSD 101	English Composition	3	-
GSD 117, 118, or 119	Writing (select)[2]	-	2
GSE 201	Healthful Living	-	2
GSE	Human Health and Well Being-Activity (select)[2]	1	-
*Math 111	College Algebra and Trigonometry	5	-
Zool 220a,b	Diversity of Animal Life	4	4
**Chem 224, 225	Introduction to Chemical Principles & Lab	-	7
		17	15

Second Year		Fall	Spring
GSB	Social Studies (select)[2]	3	3
GSC	English Elective in Humanities (select)[2]	3	-
GSC	Humanities (select)[2]	3	3
GSD 153	Public Speaking	-	2
GSE	Human Health and Well Being--Activity	-	1
**Biol 305	Genetics - Classical and Molecular	3	-
**Biol 307	Environmental Biology	-	3
ED 201	Teacher's Role in Public School Education	1	-
Zool 300	Vertebrate Embryology	4	-
Zool Elective		-	4
		17	16

*Approved substitute for GSD Math.

**Approved substitutes for GSA.

[1]Should also have a minor in Botany. See also the program under the College of Science.

[2]Refer to the section General Studies for the Transfer Student.

Zoology As A Major

Students pursuing a Bachelor of Science in Education are not required to complete a foreign language.

Refer to the Undergraduate Catalog for specific major requirements.

To include the following required courses: GSB 212, Introduction to American Government and Politics OR GSB 300 or 301, History of the United States; GSD 101, English Composition; GSD 117, 118, 119, Expository, Technical, or Creative Writing; GSD 153, Public Communication; GSE 100-114 (2 hours), Physical Education Activities; GSE 201, Healthful Living; One additional English course (GSC, GSD, or departmental); Math 111 or 110a,b, College Algebra and Trigonometry.

ZOOLOGY
College of Science
(Bachelor of Arts or
Bachelor of Science)

Dr. George Garoian,
Director of Undergraduate Studies
Telephone - 618-536-2314
Life Science II, 351 or 355D

A curriculum developed in zoology provides one with a knowledge of animals, their biology and conservation. The 22 faculty members of the Department of Zoology represent a wide range of these professional zoological disciplines. A wide variety of courses is offered in the biologically rich and diverse environment of Southern Illinois with excellent study facilities in a new $11 million life science building equipped with specialized laboratories, computer facilities, research museum, and animal quarters. Associated are the Cooperative Fisheries and Wildlife Laboratories which make important contributions to the education of many undergraduates.

The department's faculty and graduate students provide personal opportunities for student introduction to interesting specialities. This is augmented by the unique INDIVIDUALIZED CURRICULUM prepared for each student majoring in zoology. Arrangements are made through the Director of Undergraduate Studies for each student to select a faculty advisor to plan with him or her the specific program of courses in zoology and supporting areas (usually other biological sciences, math and chemistry).

First Year		Fall	Spring
GSB	Social Studies (select)	-	3
GSC	Humanities (select)	-	3
GSD 101	English Composition	3	-
GSD 117,118 or 119	Writing (select)	-	2
Math 111 or Math 110a,b	College Algebra and Trigonometry[1,2,3]	5 (3)	- (2)
Elective or Chem 115	Introductory General Chemistry[1,2,4]	3	-
Chem 222a	Introduction to Chemical Principles[1,2,4]	-	4
Zool 118	Introductory Zoology[2]	4	-
Zool 220a	Diversity of Animal Life (invertebrate)[2]	-	4
		15 (14)	16 (18)

Second Year		Fall	Spring
GSB	Social Studies (select)	-	3
GSC	Humanities (select)	2	-
GSD	Speech	2 (3)	-
GSE	Human Health and Well Being(select)	-	1
Chem 222b	Introduction to Chemical Principles[2,4]	4	-
Math 140 or 150	Calculus	-	4
Zool 220b	Diversity of Animal Life (vertebrate)	4	-
Biol 307	Environmental Biology	-	3
FL	Foreign Language[1,2]	4	4
		16 (17)	15

[1]Approved substitutes for General Studies.

[2]The College of Science requires one year of any foreign language, one year of math, 6 semester hours of physical sciences, and 6 semester hours of biological sciences.

[3]GSD 107 or 1½ years of high school algebra is a prerequisite to Math 111 and 110a.

[4]Chem 115 is for students who have less than one year of high school chemistry. Chem 222a,b or 224, 225 will satisfy Zoology Department requirements for inorganic chemistry. For some students, Chem 140a,b will be adequate.

Majors in zoology should consult with the Director of Undergraduate Studies in Zoology as soon as possible and arrange to develop an individualized curriculum under the supervision of a faculty advisor.

Zoology As A Major

A major in zoology is an appropriate beginning for those planning to specialize in teaching or research in the zoological sciences and allied fields such as conservation, enrivonmental protection, fisheries or wildlife management, dentistry, medicine, or veterinary medicine. Most positions are available in schools, local, state, and federal government agencies, museums, hospitals, and chemical, instrument, food and drug industries.

Graduate degree programs leading to M.A., M.S., and Ph.D. are available.

Representative First Job Titles: Zoologist, Animal Breeding Technician, Animal Ecologist, Animal Husbandry Supervisor, Animal Taxonomist, Biological Warfare Technician, Fishery Bacteriologist, Food Bacteriologist, Genetics Technician, Medical Laboratory Assistant, Quality Control Laboratory Technician, Soil Bacteriologist, Technical Library Operator, Entomologist, Physiologist, Wildlife Lab Assistant, Wildlife Refuge Manager, Parasitologist, Medical Bacteriologist, Zoological Park Keeper, Mammalogist, Research Technician.

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PUBLICATIONS FOR COUNSELORS

Counselor's Advisement Catalog

Every counselor and academic advisor should have a personal copy. Write School/College Relations Division, Office of Admissions and Records.

Undergraduate Catalog

Copies are distributed free to educational institutions and counselors--use school stationery. Graduate Catalog, School of Law Catalog, Schedule of Classes (specify semester) are also available by writing University Graphics.

School/College News

Published as needed to immediately inform counselors, student personnel services, staff, etc., of items of interest, status of programs, changes in academic or unit requirements.

PUBLICATIONS FOR STUDENTS

General Information Catalog

This small pictorial and factual booklet contains information and guidelines for the prospective student. It is distributed in application packets, at college days, night programs, and in correspondence. Quantities will be sent on request. Write University Graphics or School/ College Relations Division, Office of Admissions and Records.

OTHER MATERIALS AND OFFICES

Admission Applications--Office of Admissions and Records

Testing Information (ACT, CLEP)--Testing Office, Career Planning and Placement Center

Financial Aid Applications--Office of Student Work and Financial Assistance

University Housing Information--Housing Business Services, Washington Square, Building D

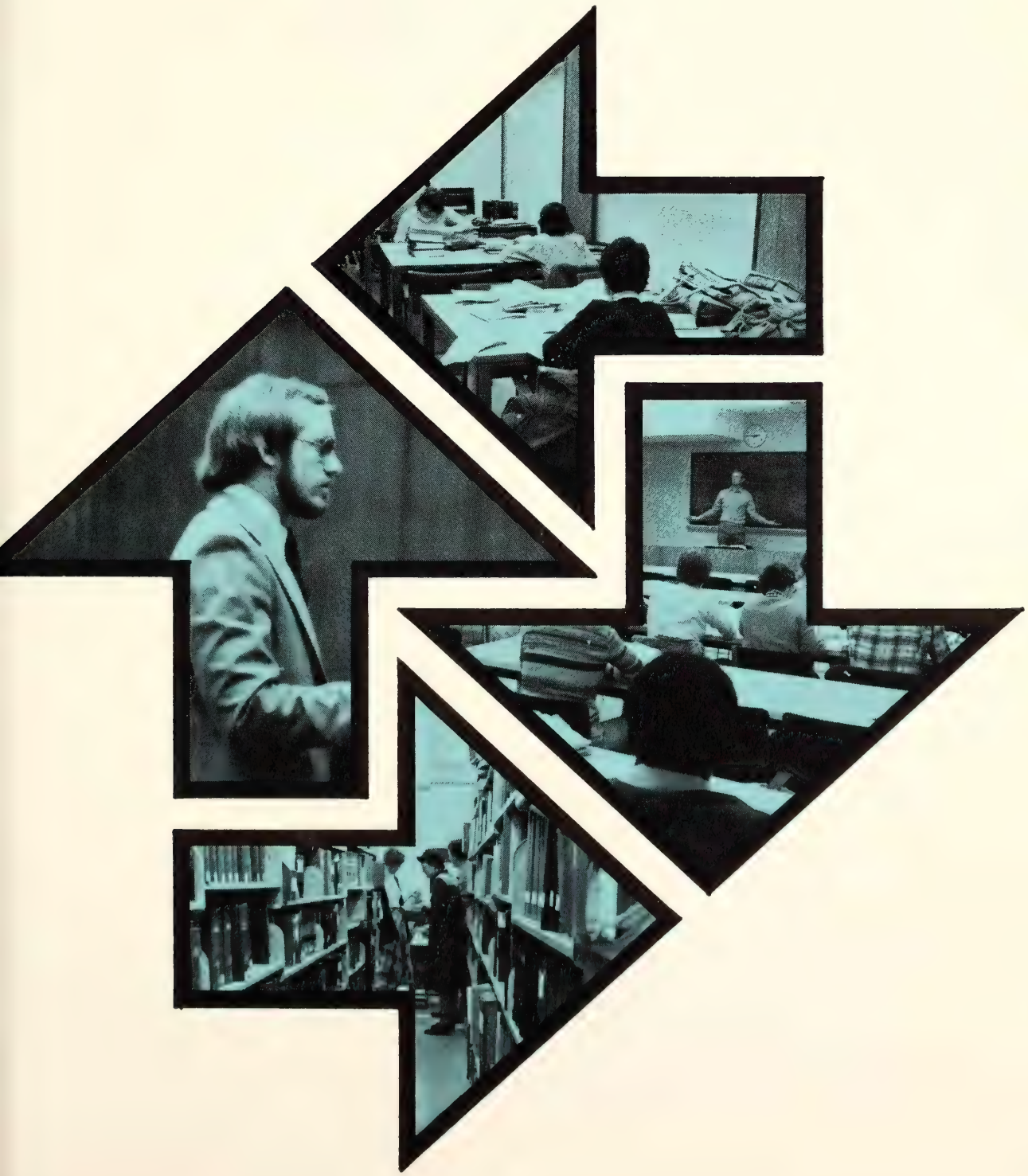
Off-Campus (Private) Housing Information--Housing Information Center, Washington Square, Building C

80040 4M 6/80

Southern Illinois University at Carbondale Bulletin

22/3

1980-1981 School of Law Catalog



Southern Illinois University at Carbondale is an Equal Opportunity Affirmative Action institution in accordance with civil rights legislation and does not discriminate on the basis of race, religion, national origin, sex, age, handicap, or other factors prohibited by law in any of its educational programs, activities, admission, or employment practices. Concerns regarding this policy should be referred to the Affirmative Action Office, Southern Illinois University at Carbondale, Anthony Hall, Room 104, telephone 618–536–6618.



Southern Illinois University at Carbondale Bulletin

1980-1981 School of Law Catalog

Southern Illinois University at Carbondale Bulletin (USPS 506-080)

Volume 22, Number 3, August 1980

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This Issue

The School of Law Catalog covers in detail questions concerning the School of Law program of Southern Illinois University at Carbondale. (It supersedes Vol. 21, No. 3, of the *Southern Illinois University at Carbondale Bulletin.*) The University reserves the right to change information contained herein on matters other than curricular requirements without notice when circumstances warrant such action, and apply the change to all students without regard as to their date of entry into college.

The following publications may be obtained free from University Graphics, Southern Illinois University at Carbondale, Carbondale, Illinois 62901.

Graduate Catalog
Undergraduate Catalog
School of Law Catalog
Schedule of Classes (fall, spring, or summer)

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Board of Trustees and Officers of Administration

Board of Trustees of Southern Illinois University	*Term Expires*
William R. Norwood, *Chairman,* Elk Grove Village	1983
A. D. Van Meter Jr., *Vice-Chairman,* Springfield	1981
Carol Kimmel, *Secretary,* Rock Island	1983
Ivan A. Elliott Jr., Carmi	1985
Wayne Heberer, Belleville	1981
Harris Rowe, Jacksonville	1983
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Robert L. Saal, Student Trustee, Carbondale	1980
Gregory L. Warren, Student Trustee, Edwardsville	1980

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Dan Hopson, *Dean,* School of Law
David C. Johnson, *Associate Dean,* School of Law
Robert E. Beck, *Acting Associate Dean, School of Law*

School of Law Calendar

Summer Session, 1980

Classes begin	Monday, June 9
Independence Day holiday	Friday, July 4
Classes end	Tuesday, July 29
Final examinations	Wednesday, July 30— Friday, August 1
Commencement	Saturday, August 2

Fall Semester, 1980

Orientation	Friday, August 22— Sunday, August 24
Classes begin	Monday, August 25
Labor Day holiday	Monday, September 1
Thanksgiving vacation	Saturday, November 22— Sunday, November 30
Classes end	Tuesday, December 9
Final examinations	Wednesday, December 10— Saturday, December 20

Spring Semester, 1981

Classes begin	Wednesday, January 14
Lincoln's Birthday holiday	Thursday, February 12
Spring vacation	Saturday, March 14— Sunday, March 22
Classes end	Friday, May 1
Final examinations	Monday, May 4— Friday, May 15
Commencement	Saturday, May 16





University General Information

History

The Southern Illinois University System is a senior public university system comprising two diverse institutions—Southern Illinois University at Carbondale and Southern Illinois University at Edwardsville—and serving approximately 33,000 students.

Chartered in 1869, Southern Illinois Normal University served as a teacher-training institution until 1943, when the school was transformed into a university, giving official recognition to the area's demand for diversified training and service. SINU became Southern Illinois University in 1947, and in 1949 began offering off-campus academic courses in the Metropolitan East St. Louis area, an initiative which led to the eventual development of a separate, distinctive institution in Edwardsville.

The mission and scope of The Southern Illinois University System are highly complex and emphasize a commitment to fine quality in education. As The Southern Illinois University System has grown and flourished, its constituent universities have developed programs of instruction, research, and public service which have attracted and served students, faculty, and staff not only from the region but from throughout the state of Illinois, the nation, and from overseas, as well.

The universities within The Southern Illinois University System offer a broad range of academic programs at the associate, baccalaureate, master's, doctoral, and professional levels. In addition to the many undergraduate degree programs offered, the System supports more than sixty academic programs which lead to the master's degree and twenty-two which lead to the doctorate. The professional schools are designed to provide first-rank health and legal graduates trained to meet the particular needs of the people of Illinois. Southern Illinois University at Carbondale operates a School of Law in Carbondale and a School of Medicine headquartered in Springfield, the first year of which is offered in Carbondale; Southern Illinois University at Edwardsville operates a school of nursing in Edwardsville and a School of Dental Medicine in Alton. More than 6,000 of the 33,000 students currently enrolled are in graduate and professional programs.

The instructional, research, and service missions of the two universities reflect the needs of the geographic areas in which they are located. The System is also committed to serving state, national, and international needs, a commitment reflected in educational activities located away from the main campuses in communities throughout the state and nation. Countries throughout the world experience this commitment through research and training exchanges and student exchange programs.

The Southern Illinois University System is governed by a nine-member board of trustees, which sets policy that enables the institutions to carry out established objectives. The Chancellor of The Southern Illinois University System is the chief executive officer of the system and is the primary link between the universities and the Board of Trustees. The university presidents report directly to the chancellor and are responsible for the internal operations of their institutions.

Location

The city of Carbondale is approximately 100 miles southeast of Saint Louis, Missouri, in Jackson County, the western border of which is the Mississippi River. Some of the most rugged and picturesque terrain in Illinois lies south of Carbondale. Sixty miles to the south is the historic confluence of the Ohio and Mississippi rivers; the two rivers form the border of the southern tip of Little Egypt, the name given to the 14 southernmost counties in Illinois. The region immediately surrounding Carbondale is noted for its large peach and apple orchards. Two state parks and four lakes are located within 10 miles of the campus and much of the area is a part of the Shawnee National Forest.

Campus

The University campus, comprising more than 3,290 acres immediately south of the city of Carbondale, includes a 981 acre developed portion with woods and a lake as a site for academic buildings and residence halls. The buildings are located in wooded tracts along two circular shaped campus drives, named for Lincoln and Douglas. Two beautiful features, located near the center of the campus, are a wooded tract preserved in the tradition of native forests of Southern Illinois and several buildings which formed the original campus a century ago. Approximately seventy-five permanent buildings and several hundred temporary buildings are located on the campus.



1 School of Law

In May, 1971, the Illinois Board of Higher Education published Phase III of its study, A Master Plan for Higher Education in Illinois. It was therein stated that a new law school "should be opened at Southern Illinois University in Carbondale as soon as appropriate planning, approval, and funding can be achieved." The University, which has main campuses at Carbondale and Edwardsville and which was aware of the need for more good law schools and particularly for a school in its region, immediately took steps to make the school a reality. An appropriation for this purpose was secured from the Illinois legislature in June, 1972, and shortly thereafter Hiram H. Lesar, then dean of the School of Law at Washington University, was employed as the first dean of the new school. The nucleus of an able faculty, experienced in practice and teaching, was recruited, and a first-year class was accepted to begin study in September, 1973.

Purposes

The main purpose of the School of Law is to train lawyers who will be competent to practice law now and in the future. In addition to specific legal rules, the student must learn analytic skills, research techniques, and the basic legal principles and policies underlying the current applications of those rules. He or she should also learn the basic skills of advocacy, counseling, and negotiation.

Although its graduates will be prepared to practice in any jurisdiction, it is anticipated that the School of Law by reason of its location will help to provide lawyers to fill the unmet need for legal services in Southern Illinois.

The second purpose of the School of Law stems from recognition of the social fact that lawyers are expected to provide a large part of the leadership in a wide spectrum of American life. In general terms this means that lawyers must perform two functions which go beyond rendering competent legal service. They must be prepared to serve in a "watch-dog" capacity with respect to the proper functioning of American institutions, and they must be prepared to participate in "making law." Of course, the lawyer-legislator "makes" law but so does the member of the important bar association committee charged with responsibility for drafting proposed legislation.

The second purpose of the school, then, is to assure that the leadership function performed by lawyers is carried out well. For this purpose the lawyer requires not only the whole range of skills and knowledge needed for the practice of law, but also an understanding of our institutions and a sensitivity to potential conflict areas. Two things are essential to carrying out objectives of such breadth: a curriculum which balances the course offerings as carefully as possible so that neither purpose is sacrificed to the other,

and a faculty with unusual breadth of knowledge and vision to formulate that curriculum and with an extraordinary ability to implement it, both within and without the classroom.

The third purpose of the school—which is essential to the fulfillment of the other two—is to instill in its students a proper conception of the professional responsibilities of the lawyer and the organized bar, an understanding of the nature and role of the legal profession, and knowledge and appreciation of the ethical principles by which all lawyers are bound.

It is the school's position that this kind of training can best be accomplished with a student body numbering from 350 to 450—small enough so that faculty and students may know one another and large enough to justify a faculty of sufficient size to offer all the courses that should be given in a modern law school. As soon as a new building can be provided, the school will be expanded to this size. In the meantime, an entering class of 90 will be accepted each year, and the faculty will consist of 18 full-time members to accommodate a total enrollment of about 240.

Facilities

The school occupies two, and parts of another two, adjoining buildings in the Small Group Housing Complex near the lake on the main campus. These buildings, which formerly housed fraternities, have been remodeled. One houses the law library, the second is the classroom-office building, a third has additional library facilities, a court-classroom, and faculty offices, and a fourth provides book storage capacity.

Library

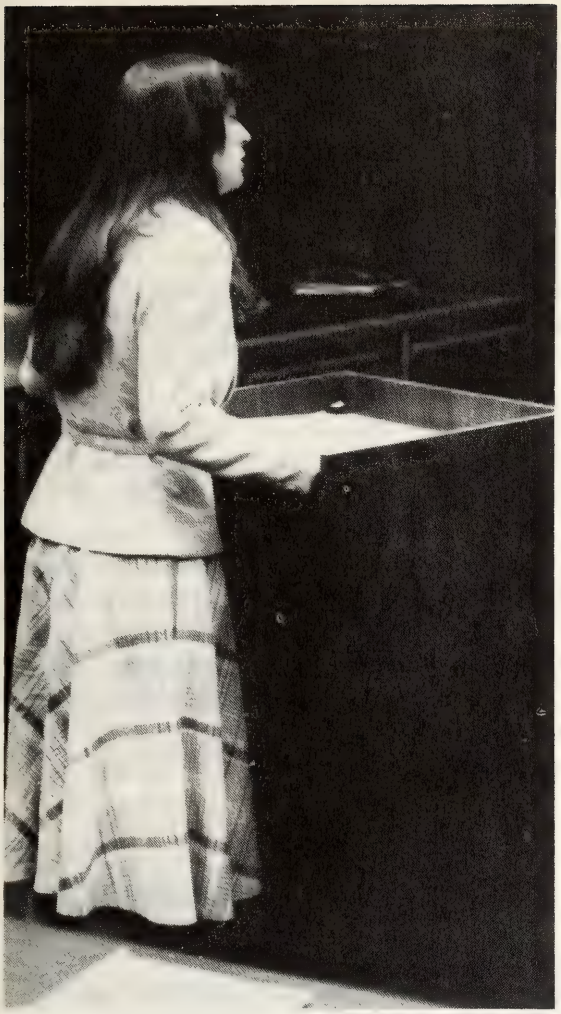
The law library is well equipped to provide the research resources needed by a quality faculty and student community. More than 165,000 books are housed in the collection, which includes an almost complete inventory of primary legal sources, both state and federal. The mongraphic and treatise holdings in law and law-related fields are representative of the best available; moreover, a strong retrospective and current legal periodical collection has been developed. The law library maintains subscriptions to loose-leaf and other current awareness services supporting all major curricular and research efforts. Both a computer-assisted legal research system (LEXIS) and a computer-assisted instructional system (PLATO) are available in the library. A variety of sophisticated indices, including a superior card catalog and the interpretive services of law-trained librarians, provide access to the fully classified and cataloged collection. The library has been a government depository since 1978, and its government publications are fully integrated into the library collection.

The resources of over 1,650,000 volumes in the University library are readily available to law students to supplement the strong, well-staffed law school facility.

Accreditation

The SIUC School of Law has been provisionally approved by the American Bar Association.

"A law school will be granted provisional approval when it establishes that it substantially complies with the Standards for Approval of Law Schools by the American Bar Association and gives assurance that it will be in full compliance with the standards within three years after receiving provisional approval.





"A law school will be granted full approval when it establishes that it is in full compliance with the standards and it has been provisionally approved for at least two years.

"A provisionally approved school will be reinspected each year during the period of provisional approval and will be granted full approval when the Council of the Section of Legal Education and Admissions to the Bar and the House of Delegates of the American Bar Association determine that the school complies with all of the requirements of the Standards for Approval of Law Schools by the American Bar Association as they relate to full approval.

"A provisionally approved school will be considered for full approval by the House of Delegates when the council finds, after inspection, that the school meets the standards established by the American Bar Association as interpreted by the council on a basis that assures continued compliance with the letter and the spirit of the standards, with particular emphasis on a steady improvement in the quality of the educational program.

"The students at provisionally approved law schools and persons who graduate while a school is provisionally approved are entitled to the same recognition accorded to students and graduates of fully approved law schools." (Council of the Section of Legal Education and Admissions to the Bar of the American Bar Association.)

Curriculum

The first-year curriculum includes basic courses and is required. It differs from the first-year curriculum in many, if not most, schools in that first-year legal writing is taught in small sections of 10 to 20 students each by regular full-time faculty members, and in the inclusion of a course in commercial law the second semester to familiarize students with statutory law. Second- and third-year elective courses are offered in all major fields of law.

The combined total of course work permitted in each of the areas of clinical law, moot court board, and law review may not exceed 6 semester hours.

In addition to the first-year courses, every student will be required to take at least one seminar which requires the production of a paper of the quality of a law review comment. Law review students are not required to take a seminar but may do so if they wish. A seminar generally will be an "in depth" study of one or more aspects of the regular courses or a combination of such courses. Course descriptions may be obtained from the office of the dean of the School of Law.

Up to 6 semester hours of credit for course work taken in the Graduate School may be applied, with permission of the deans of both the Graduate School and the School of Law, toward the number of hours required for the J.D. degree and toward the residence semester requirement. A student must earn a grade of *B* or better in such work for School of Law credit to be given, but this letter grade will not be reflected on a student's School of Law record, nor will it be used to compute the law grade-point average.



FIRST-YEAR COURSES

First Semester

Course	*Semester Hours*
Contracts	4
Introduction to Law and the Legal System	2
Torts	4
Property I	3
Legal Writing and Reasoning	2
Legal Bibliography I	1
Total	16

Second Semester

Commercial Law I	3
Constitutional Law I	3
Procedure I	3
Property II	3
Criminal Law	3
Moot Court I	1
Total	16

SECOND- AND THIRD-YEAR COURSES

Administrative Law	3
Admiralty Law	2
Aging and the Law	2 or 3
Agricultural Law	2
Anglo-American Legal History	3
Antitrust	3
Advanced Moot Court	1–4
Business Associations I*	3
Business Associations II*	3
Commercial Law II*	4
Conflict of Laws	3
Constitutional Law II (required)*	3
Consumer Protection	3
Corrections	3
Creditors' Rights	3
Criminal Justice Administration	4
Deceptive Trade Practices	2
Drafting Legal Instruments	2 or 3
Economic Regulation of Business	3
Environmental Law	3
Estate and Gift Taxation	3
Estate Planning	3
Evidence*	3 or 4
Family Law	2 or 3
Federal Courts	3
Federal Income Taxation*	3
Federal Income Taxation of Business Enterprises	3
Future Interests	3
Graduate Courses	up to 6
Higher Education Law	2
Insurance	3
International Law	3
Juvenile Courts	2
Labor Law I	2
Labor Law II	2
Law Journal	1–6
Legal Bibliography II (required)*	1
Legal Clinic	1–6
Legislation	3
Mental Health Law	2 or 3
Mining Law	3
Oil and Gas Law	3
Principles of Draftsmanship	3
Problems in First Amendment Litigation	2
Problems in Probate Administration	3
Procedure II*	3
Real Estate Finance and Development	3
Remedies	3
Securities Regulation	3
Sports Law	2
State and Local Taxation**	2
The Legal Profession (required)	2
Transnational Business Transactions	3
Trial Advocacy	3
Trusts and Estates*	4
Water Law	2

SENIOR WRITING SEMINARS

Civil Procedure	3
Constitutional Law	3
Criminal Justice	3
Business Law	3
International Law	3
Products Liability	3
Tax Policy	3

* Normally elected in the second year
** Offered only in summer session

Admission

To be admitted as a candidate for the Juris Doctor degree, an applicant must have received a bachelor's degree or the equivalent and must have demonstrated capacity for the study of law by a satisfactory undergraduate record and satisfactory performance on the Law School Admission Test (LSAT). Forms for applying for admission may be obtained from the School of Law, Southern Illinois University at Carbondale, Carbondale, Illinois 62901.

The LSAT is administered on a nationwide basis by the Educational Testing Service, Box 944, Princeton, New Jersey 08540. The test administration dates in October or December of the applicant's final year of undergraduate study are preferred.

Applicants must also register with the Law School Data Assembly Service (LSDAS) by completing the form found in the LSAT bulletin of information and returning it to the Educational Testing Service. Applicants must have transcripts sent to LSDAS by the registrar of each college and professional or graduate school attended. The applicant's test score and evaluation of transcripts are reported to him and to the law schools he designates. The applicant should indicate on the LSAT/LSDAS matching forms that his score and evaluation are to be reported to the Southern Illinois University at Carbondale School of Law. It is not necessary that application for admission to the School of Law be made before taking the test or registering with LSDAS.

Applications for admission to the school may be filed any time after September 1, but preference will be given to applicants who file their applications prior to January 1. There is a $10.00 application fee.

An applicant who is admitted is required to make a security deposit of $100 by April 1, unless accepted later, when several weeks are allowed. This deposit will be credited against the first semester's tuition and fees.

Admissions are made without regard to race, color, religion, sex, national origin, age, handicap, or other factors prohibited by law.

Degree Requirements

A candidate for the Juris Doctor (J.D.) degree must satisfy the entrance requirements, fulfill the residence requirements, and satisfactorily complete a total of 90 semester hours of work for credit and must take all required courses. The required courses consist of all first year courses, Constitutional Law II, Legal Bibliography II, The Legal Profession, and a senior writing seminar.

RESIDENCE REQUIREMENT

A candidate must complete six semesters of residence, not less than the last two of which must be in this School of Law. In order to obtain residence credit for a semester, a candidate must examine in a minimum of 12 hours of work and must obtain final credit in a minimum of 10 hours of work. A candidate who either examines in or obtains final credit for fewer than the required minimum hours will be given proportionate residence credit. No credit toward residence is given in courses in which a student receives a failing grade.

LIMITATION OF COURSE HOURS

No student may register for more than 16 hours without the consent of the

dean. It is advisable for students to devote substantially their entire time to their work in the school. A student who undertakes substantial employment outside the school should reduce his course load.

ATTENDANCE AND WITHDRAWAL

Regular attendance is expected and required of each student. An instructor may exclude from any class a student who is unprepared and may, after prior notice, exclude from the final examination in any course any student whom, for reasons of lack of preparation or lack of attendance, he deems unqualified to receive credit in the course. Specific rules regulating attendance and withdrawal from courses are furnished each student prior to registration.

EXAMINATIONS

A student who has not withdrawn, or been withdrawn, from a course is expected to take the examination for that course at the regularly scheduled time. Unexcused failure to take an examination will result in a failing grade. If failure to take an examination is excused, the student may, with the permission of the dean and the instructor, take the examination after the rest of the class or at the time it is next regularly offered. Withdrawal from a non-required course must be made in accordance with University deadlines.

POOR SCHOLARSHIP RULE

Grades are given in numbers, with 75 being the average required for graduation. A student who fails to have a cumulative average of 74 at the end of the first year or 75 at the end of any other academic year will be dropped from the school for poor scholarship. A student whose average at the end of the first year is below 74 may appeal to the dean, who refers the petition to the Academic Standards Committee to recommend acceptance or denial of the petition for readmission.

Tuition and Fees

Tuition and fees in the School of Law are established by the Board of Trustees and are subject to change whenever conditions make changes necessary. Present tuition and fees for regularly enrolled law students (taking 12 or more semester hours) are $426.65 per semester for residents and $1,065 per semester for non-residents. Books will cost about $200 per semester.

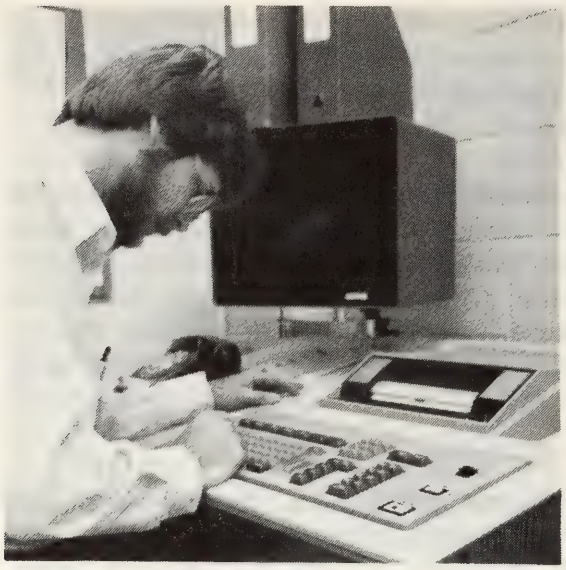
Financial Aid

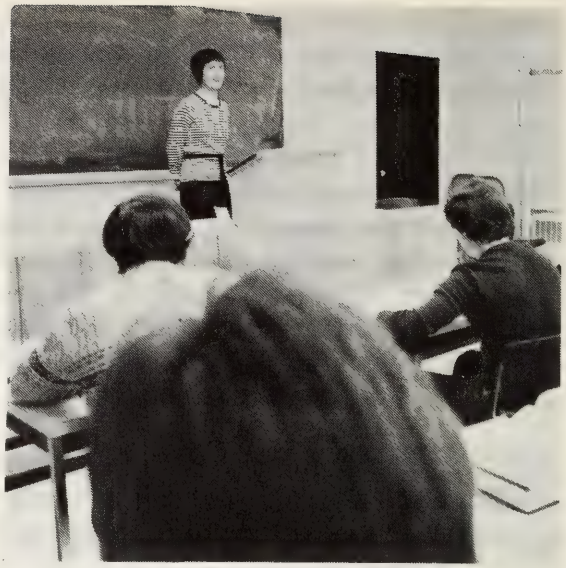
Although the School of Law has limited resources for financial aid at its disposal, some assistance is available.

The University maintains an Office of Student Work and Financial Assistance through which work on campus, cooperative work-study programs, the federal work-study program, various veterans benefits (both state and federal), tuition remission scholarships, and student loans may be negotiated. For more specific information, students may contact the Office of Student Work and Financial Assistance, Woody Hall, Southern Illinois University at Carbondale, Carbondale, Illinois 62901.

In addition, there are available through the law school:

1. A number of Dean's Club scholarships, made available through contributions by the school's benefactors.





2. The Judge James O. Monroe, Jr. scholarship, made available through the Judge James O. Monroe, Jr. endowment fund established by the Madison County Bar Association.
3. The Max Turner Memorial Scholarship Fund, established in memory of an early advocate of the law school.
4. A limited number of research assistantships awarded to members of the second- and third-year classes primarily on a merit basis. These are provided from the school's state-appropriated funds. Assistantships are also awarded to each of the six members of the Moot Court Board.
5. A limited number of work opportunities in the law library and in the administrative offices of the school. These are provided from the school's state-appropriated funds.
6. A limited number of cash grants awarded from the school's activities funds derived from various sources, including application fees.

Specific instructions for applying for financial aid are mailed during the summer to entering students who indicate in their admission applications that they are interested in financial aid.

Housing

University on-campus housing is available for 4,800 single students and 576 married students. Off-campus housing is readily available. Inquiries concerning on-campus or off-campus housing may be obtained from University Housing, Washington Square, Southern Illinois University at Carbondale, Carbondale, Illinois 62901.

Honor Code

"The cornerstone of our legal system is the integrity of the individual lawyer." Preparation for law, therefore, must encourage individual integrity as well as understanding of law. The essence of an honor system is the observance by each student of high ethical standards of conduct. The system yields immediate tangible advantages of convenience—examinations are not supervised, a student's word is accepted as the truth, and ownership of personal belongings is respected; it yields also lasting intangible values of the spirit—those who have lived under an honor code are forever dissatisfied with any less rigorous standards. Students of the school have adopted an

honor code and elected an ethics council to enforce it. Copies of the code, as amended, will be sent to applicants on request and will be sent routinely to all accepted applicants.

Student Bar Association

The student body has drafted and adopted a constitution and by-laws for the Student Bar Association of which every regular law school student is a member. The association functions primarily through officers and committees elected by the membership at large and plays an integral role in the operation and governance of the law school. The students who serve as representatives to the faculty meetings are elected by the students, and those who serve on the various faculty committees are appointed by the dean from a list submitted by the president of the Student Bar Association.

Legal Aid Clinic

The school operates a legal aid clinic which works directly with inmates of various state institutions such as the Illinois state prison at Menard. The clinic has a full-time director who is also a member of the faculty and provides interested students with a number of internships and research assistantships. The work with these inmates, with the Land of Lincoln program for indigent persons, and with the public defender and appellate public defender programs, as well as with other selected programs, gives students an unusual opportunity for variety in the clinic experience. Civil as well as criminal problems are encountered. Clinic credit may not be given before a student's fourth semester, and a student may not register for more than three hours of credit prior to obtaining a student (711) license to practice in Illinois. Clinic credit must be approved by the law school Clinical Law Committee.

Law Journal

The *Southern Illinois University Law Journal* is a scholarly legal publication which is printed quarterly. The journal is managed and edited by an editorial board, with the published materials supplied by students, law professors, and other members of the legal profession. Work on the journal affords the student intensive training in legal research, analysis, and writing. All students are eligible to write for the journal and earn writing and academic credit for demonstrating superior writing skills. A small percentage of the journal candidates will be invited to be members of the editorial staff of the journal on the basis of grades at the end of the second and third semester. Membership on the editorial board is attained by completion of the writing and administrative requirements. There is an election for the offices of editor-in-chief, managing editor, articles editors, notes and comments editors, research editors, and business editor.

Moot Court

The moot court program, under the directorship of a full-time law faculty member, is a comprehensive one. It provides a required experience in appellate practice in the first year, an opportunity to pursue an advanced program in the second year, and eventual membership on the student moot court board which is selected from those interested and qualified. The school has participated in national moot court competition since 1974 and plans to continue doing so in the future. This team is selected from students enrolled in the advanced moot court course. Since 1977 students have competed in the ABA-sponsored National Appellate Advocacy Competition.

Several other national and international competitions are available to interested students.

Concurrent Degree Programs

A student who has been admitted separately to the School of Law and to the graduate program in business administration may apply for permission to study concurrently for both the Juris Doctor and the Master of Business Administration degrees. This permission must be requested from both the School of Law and the graduate program in business administration, ordinarily prior to entry into the second-year curriculum of the School of Law.

During the first academic year of concurrent work on the two degrees, the student enrolls only in the first-year law curriculum. In any subsequent academic term the student may enroll either for courses only in the School of Law or only in the Graduate School, or for courses in both units. A student registered for both law and graduate courses in the same term must enroll for a minimum of 10 semester hours in law, and 12 semester hours in total, in order to meet A.B.A. residence requirements and the academic requirements of the School of Law.

Completion of the concurrent programs requires that the student successfully complete 81 semester hours of law courses and 30 semester hours of courses that meet M.B.A. requirements. In addition, the student must fulfill all other requirements of the School of Law, the Graduate School, and the program in business administration for the J.D. and M.B.A. degrees. A student, with law school approval, may obtain similar law credit for a master's degree in other disciplines if the work follows the guidelines set out for the J.D./M.B.A. The school currently has, for instance, several students pursuing a J.D. and a Master in Public Affairs degree. It should be noted that the requirements for a master's degree are solely the concern of the discipline awarding that degree.

Placement Services

A full range of placement services is offered to students and alumni including current job listings, on-campus interviews with prospective employers, and resume assistance. Students are encouraged to begin career planning early in their law school years and to seek summer and part-time legal employment experience. The placement office will make every effort to help students identify and pursue employment opportunities.

The School of Law is firmly committed to a policy against discrimination in employment based on sex, race, religion, age, handicap, or national origin, and we expect that all employers who use our placement services will make certain that no such discrimination occurs.

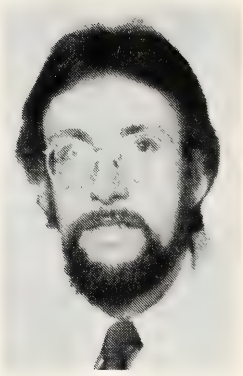
By February of 1980 seventy-eight of the eighty-six members of the Class of 1979 had notified the School of Law that they were occupying law-related positions. Beginning salaries ranged from $8,000 to $30,000, with the median salary at $16,000.

Research Bureau

The purposes of the research bureau are to furnish high quality service to attorneys while providing paid research and writing experience to law students. Second and third year students are eligible for participation in the organization which is administered by a student steering committee with the advice and assistance of a faculty adviser and the placement director.

2 Faculty and Staff

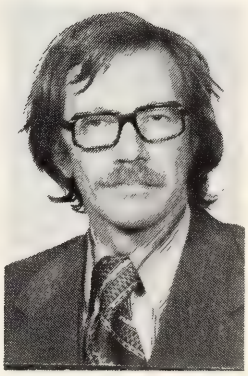
Faculty



W. Eugene Basanta, B.A., J.D., LL.M.

Assistant Professor of Law

B.A. 1972, Williams College; J.D. 1975, University of Kentucky; LL.M. 1980, Temple University. Admitted to practice in Kentucky. Law clerk, Fayette County Circuit Court, 1974–75; private practice, Louisville, 1975–78; assistant professor at SIUC School of Law since 1980.



Robert E. Beck, B.S.L., LL.B., LL.M.

Professor of Law

B.S.L. 1958, University of Minnesota; LL.B. 1960, University of Minnesota; LL.M. 1966, New York University. Admitted to practice in Minnesota. Private practice 1960–62; assistant professor, University of North Dakota, 1962–65; visiting associate professor, University of Maine, 1965–66; associate professor, 1966–68, professor, 1968–75, Chester Fritz Distinguished Professor, 1975–76, University of North Dakota; professor at SIUC School of Law since 1976. Author of *Drainage Law, 5 Waters and Water Rights* (R. Clark ed. 1967, 1972, 1976), and articles in legal publications.



F. Reed Dickerson, A.B., LL.B., LL.M., J.S.D.

Visiting Professor of Law

A.B. 1931, Williams; LL.B. 1934, Harvard; LL.M. 1939, J.S.D. 1950, Columbia. Admitted to practice in Massachusetts and Illinois. Private practice 1934–38; University Fellow 1938–39, Columbia; assistant professor 1939–40, Washington University; assistant professor 1940–42, University of Pittsburgh; attorney 1942–47, Office of Price Administration; assistant legislative counsel 1947–49, U.S. House of Representatives; attorney 1949–58, Department of Defense; professor 1958–80, associate

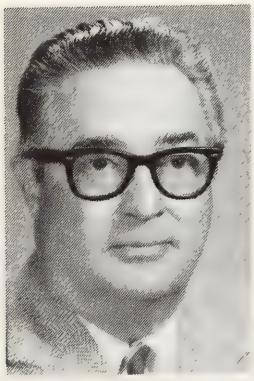
dean 1971–75, Indiana; visiting scholar 1961–62, Harvard; distinguished visiting professor, Southern Illinois University, Spring 1976. Distinguished Civilian Service Award, 1957. Author: *Cases and Materials on Legislation* (with Nutting and Elliott), 1969. Consultant, President's Committee on Consumer Interests, 1968–69; Standing Committee on Legislative Drafting, American Bar Association, since 1965; consultant, General Accounting Office, since 1973; chairman, Indiana Committee on Uniform State Laws.



ISAAK I. DORE, CAMBRIDGE SCHOOL CERTIFICATE, LL.B., LL.M., LL.M., J.S.D.

Assistant Professor of Law

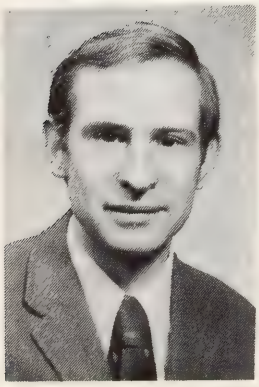
Cambridge School Certificate 1968; LL.B. 1972, LL.M. 1975, University of Zambia; LL.M. 1976, J.S.D. 1978, Yale Law School. Public Prosecutor and Legal Aid Counsel, Republic of Zambia, 1972–73; Staff Development Fellow, University of Zambia, 1972–75; Sterling Fellow, Yale Law School, 1975–77; Institute for the Study of World Politics Fellow, 1977; Human Rights Officer, United Nations Office at Geneva, 1978; assistant professor at SIUC School of Law since 1979.



ROBERT H. DREHER, B.A., J.D., D.L.

Associate Professor of Clinical Law

B.A. 1936, University of Texas; J.D. 1940, University of Illinois; D.L. 1973, Oxford. Admitted to practice in Illinois and California. Special agent, F.B.I., 1940–46; private practice, 1946–67; associate professor, Center for the Study of Crime, Delinquency, and Corrections, and Department of Government, Southern Illinois University since 1967; associate professor of clinical law and director, clinical program, at SIUC School of Law since 1974.



DARRELL W. DUNHAM, B.A., J.D., LL.M.

Professor of Law

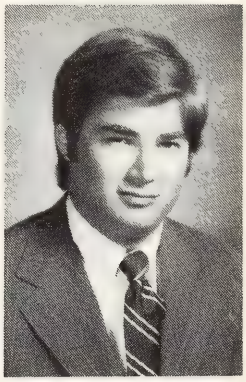
B.A. 1968, J.D. 1971, Willamette University; LL.M. 1972, Harvard. Admitted to practice in Washington. Law clerk Justice Sloan, Oregon Supreme Court, 1970; associate professor of law, University of Idaho, 1972–1975; visiting professor of law, University of South Dakota, 1975–1976; visiting professor of law, University of San Diego, Summer 1976; associate professor, 1976–79, professor at SIUC School of Law since 1979. Author of articles in legal periodicals.



DONALD W. GARNER, B.A., J.D.

Associate Professor of Law

B.A. 1967, University of Texas at Arlington; J.D. 1971, University of Texas at Austin. Admitted to practice in Texas. Briefing attorney, Texas Supreme Court, 1971–72; private practice, 1972–74; assistant professor, 1974–77, associate professor at SIUC School of Law since 1977. On leave, 1980–81, University of Arkansas School of Law.



MYRON C. GRAUER, B.A., J.D., LL.M.

Assistant Professor of Law

B.A. 1971, University of Vermont; J.D. 1975, University of Pittsburgh; LL.M. 1980, Yale Law School. Admitted to practice in Pennsylvania and the District of Columbia. Private practice, Washington, D. C., 1975–78, and Pittsburgh, 1978–79. Assistant professor at SIUC School of Law since 1980.



WILLIAM A. GREGORY, B.A., M.A., J.D.

Professor of Law

B.A. 1965, Case Western Reserve University; M.A. 1966, University of Michigan; J.D. 1969, Harvard Law School. Admitted to practice in California. Private practice, Los Angeles, 1969–71; corporate practice, Los Angeles, 1971–73; assistant, then associate, professor of law, University of Tulsa, 1973–78; Paul E. Casseb visiting professor, St. Mary's University, 1976–77; associate professor, 1978, professor at SIUC School of Law since 1979. Author of articles in law reviews.

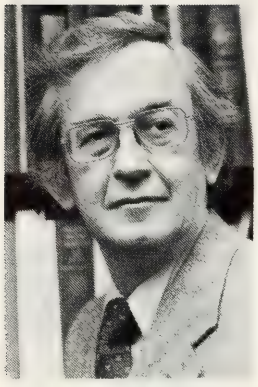


HAROLD W. HANNAH, B.S., J.D.

Adjunct Professor of Law

B.S. 1932, J.D. 1935, University of Illinois. Director, Division of Special Services for War Veterans, 1945–47; associate professor, agricultural law and administration, University of Illinois, 1935–41 and 1947–54; dean of resident instruction, College of Agriculture, 1954–59; group leader of contract team in India, 1955–57; professor of agricultural and veterinary medicine law, University of Illinois, 1959–71; private practice since 1971; lecturer and adjunct professor at SIUC School of Law since 1975. U.S. Army, 1941–45. Author of *Law on the Farm* (MacMillan, 1948); *Law and Court Decisions on Agriculture* (with Krausz, Stipes Publishing Co., 1968); *Law for the Veterinarian and Livestock Owner* (Interstate, 1974); *Resource Book for Universities in Developing Countries* (University of Illinois Press, 1966);

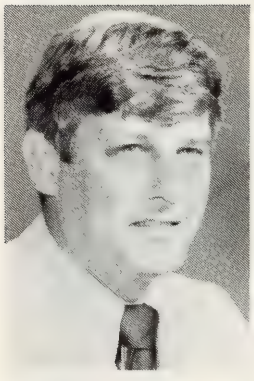
The Legal Base for Universities in Developing Countries (with Caughey, University of Illinois Press, 1967); *Law and the Farmer* (revision of Buescher, Springer Publishing Company 1975).



DAN HOPSON, A.B., LL.B., LL.M.

Professor of Law and Dean

A.B. 1951, LL.B. 1953, University of Kansas; LL.M. 1954, Yale Law School; 1954–55, Cambridge University, England. Assistant professor, 1955–59, assistant dean, 1957–59, associate professor, 1959–63, University of Kansas School of Law; research associate, Yale Law School, 1959–60; professor of law, University of Kansas, 1963–67; professor of law, Indiana University 1967–80; associate dean of the faculties, Indiana University, Bloomington, 1974–78; dean and professor of law at SIUC School of Law since 1980. Author of *Lawyers and Their Work* (with Quintin Johnstone, Bobbs-Merrill, 1967); *Economics of Indiana Law Practice* (with James H. Grund, Indiana Bar Association, 1971), and of articles in various legal periodicals.



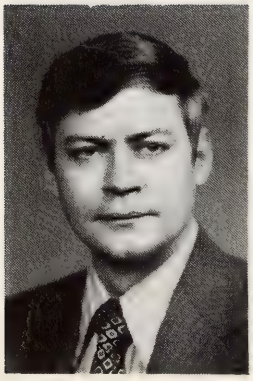
JOHN W. HUFFMAN, B.S., LL.B.

Adjunct Professor of Law

B.S. 1959, Eastern Illinois University; LL.B. 1964, University of Illinois. Private practice in Illinois, 1964–70; dean for judicial council, Kent State University, 1970–72; legal counsel, Southern Illinois University 1972–76; adjunct professor of law at SIUC School of Law since 1975.

DAVID C. JOHNSON, B.S., C.P.A., J.D., LL.M.

Professor of Law and Associate Dean



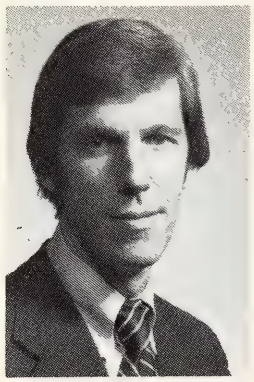
B.S. 1959, C.P.A. 1959, J.D., 1961, University of North Dakota; LL.M. 1964, University of Pennsylvania. Admitted to practice in North Dakota and Georgia. U.S. Army Captain, 1961–63. Graduate fellow 1964, University of Pennsylvania; assistant professor 1964–67, associate professor 1967–70, professor 1970–71, Emory University; visiting professor 1971–72, professor 1972–75, University of Oklahoma; professor at SIUC School of Law since 1975. Author of *Georgia Landlord and Tenant Law* (Encyclopedia of Georgia Law, 1968), and of articles in various legal periodicals.



ELIZABETH S. KELLY, B.A., J.D.

Assistant Professor of Law and Library Director

B.A. 1958, College of St. Catherine; J.D. 1978, Southern Illinois University. Academic library experience, 1958–73; technical services librarian, 1973–75, reader services librarian, 1975–77, acting law librarian, 1978, librarian and assistant professor at SIUC School of Law since 1978.



EDWARD J. KIONKA, B.S., J.D., LL.M.

Professor of Law

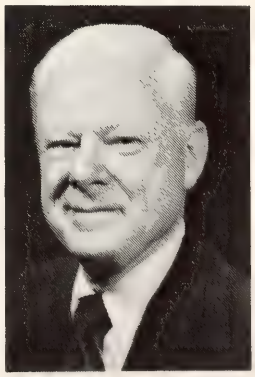
B.S. 1960, J.D. 1962, University of Illinois; LL.M. 1974, Columbia University. Admitted to practice in Illinois and Missouri. Private practice 1962–64, 1971–72, 1975–76. Lt. Cdr., USNR. Teaching associate, Columbia University, Fall 1962; instructor in law, University of Michigan, 1964–65; director, Illinois Institute for Continuing Legal Education, 1965–67; assistant dean and assistant professor of law, University of Illinois, 1967–71; special counsel, General Government Committee, Sixth Illinois Constitutional Convention, 1970; Krulewitch Fellow, Columbia University, 1972–73; associate professor, 1973–75, 1976–77, adjunct professor, 1975–76, professor at SIUC School of Law since 1977; visiting professor, Washington University, 1979–80. Author of *Torts in a Nutshell: Injuries to Persons and Property,* articles in legal periodicals. Editor of *Illinois Civil Practice After Trial* (Illinois Institute for Continuing Legal Education, 1970, 1976).



MARK R. LEE

Assistant Professor of Law

B.A. 1971, Yale University; J.D. 1974, University of Texas, Austin. Admitted to practice in Texas. Assistant attorney general, Austin, Texas, 1974–75; attorney, Department of Justice, Washington, D.C., 1975–76; instructor, University of Miami, 1976–77; assistant professor at SIUC School of Law since 1977.



HIRAM H. LESAR, A.B., J.D., J.S.D.

Professor of Law

A.B. 1934, J.D. 1936, University of Illinois; J.S.D. 1938, Yale. Admitted to practice in Illinois, Missouri, U.S. Supreme Court. Sterling Fellow, Yale, 1936–37; assistant professor 1937–40, associate professor 1940–42, University of Kansas; senior attorney 1942, principal attorney

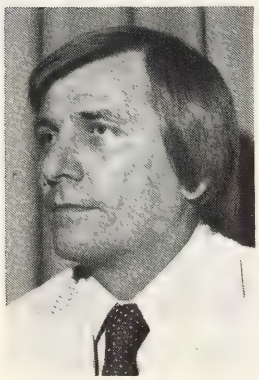
1943, Board of Legal Examiners, Washington, D.C.; U.S. Navy 1944–46 (Lt. Cdr.); associate professor 1946–48, professor 1948–57, University of Missouri; professor 1957–60, dean and Zumbalen professor 1960–72, Washington University; dean and professor of law at SIUC School of Law 1972–80; interim president 1974; acting president 1979–80. Summer visiting professor: Illinois, 1947; Indiana, 1952; Southern California, 1959: North Carolina, 1961; New York University, 1965. Reporter, Special Study Committee on the Judiciary (Mo.), 1966–67. Author: Landlord and Tenant (Little-Brown, 1957); Vol. I Pt. 3 of *American Law of Property* (Casner ed., Little-Brown, 1952, Supp. 1977); articles in *Annual Survey of American Law*, 1953, 1955–70, in various legal periodicals, and in the *Encyclopaedia Britannica.*



T. Richard Mager, B.A., J.D.

Adjunct Professor of Law

B.A. 1956, J.D. 1960, University of Missouri. Admitted to practice in Illinois and Missouri. Lecturer in law, 1963–66, University of Missouri; private practice, 1963–64; assistant prosecuting attorney, 1964, Boone County, Missouri; assistant counsel 1964–67 and counsel 1971, The Curators, University of Missouri; legal counsel 1971–72, Vice President for Development and Services 1972–75, Southern Illinois University; associate professor 1975–78, adjunct professor at SIUC School of Law since 1978.



Brian E. Mattis, B.S.B.A., J.D., LL.M.

Professor of Law

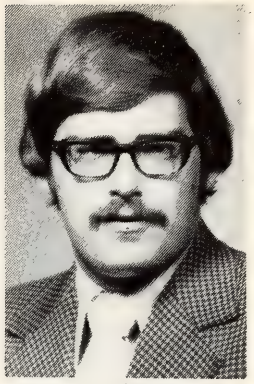
B.S.B.A. 1960, University of Florida; J.D. 1968, University of Miami; LL.M. 1969, Yale. Admitted to practice in Florida. Sterling Fellow, Yale, 1968–69; associate professor 1969–72, professor 1972–74, University of Nebraska; professor at SIUC School of Law since 1974. Summer: University of Nebraska, 1970, 1972, 1973. Author of articles in legal publications.



Taylor Mattis, B.A., J.D., LL.M.

Professor of Law

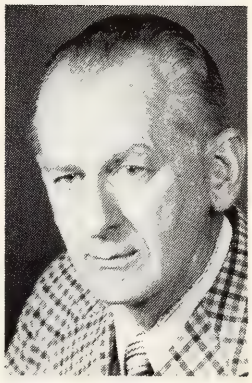
B.A. 1960, University of Alabama; J.D. 1963, University of Miami; LL.M. 1969, Yale. Admitted to practice in Florida, Nebraska, and Illinois. Private practice, 1963–66; law clerk, U.S. District Judge Emett Choate, 1966–68; Sterling Fellow, Yale, 1968–69; attorney, Nebraska Appellate Justice Project, 1972–74; associate professor, 1974–77, professor at SIUC School of Law since 1977. Author of articles in legal periodicals. On leave 1980–81.



THOMAS P. POLITYKA, B.A., J.D.

Assistant Professor of Law

B.A. 1971, J.D. 1973, University of Nebraska. Admitted to practice in Nebraska. Law clerk, U.S. District Judge Robert Van Pelt, 1973–74; assistant professor at SIUC School of Law since 1974.



THOMAS G. ROADY, JR., A.B., M.A., J.D.

Professor of Law

A.B. 1940, M.A. 1949, J.D. 1948, University of Illinois. Admitted to practice in Illinois and Tennessee. AUS-AC, 1942–46, Maj.; Lt. Col., U.S.A.F. Res. University Fellow, Columbia University, 1948–49; assistant professor 1949–50, associate professor 1950–51, professor 1951–52, University of Tennessee; associate professor and assistant dean, Washington University, 1952–53; private practice in Illinois 1952–56; visiting professor, University of Missouri, 1954; professor, Vanderbilt University, 1956–68; professor, University of Tennessee, 1968–73; associate dean 1973–77, professor at SIUC School of Law since 1973. Editor of *Professional Negligence* (with Andersen, 1960); *Essays on Procedures and Evidence* (with Covington, 1961); *Selected Problems in the Law of Corporate Practice* (with Andersen, 1960). Author of articles in legal periodicals.



ROBERT H. SKILTON, A.B., M.A., LL.B., Ph.D.

Visiting Professor of Law

A.B. 1930, M.A. 1931, LL.B. 1934, Ph.D. 1943, University of Pennsylvania. Admitted to practice in Pennsylvania and Wisconsin. Private practice, 1934–37; instructor, then associate professor, 1937–53, Wharton School, University of Pennsylvania; associate professor, then professor, Law School, University of Wisconsin, since 1953, professor emeritus since 1976; distinguished visiting professor, SIUC School of Law, Spring, 1976; distinguished visiting professor, McGeorge School of Law, 1977–78; visiting professor, SIUC School of Law, 1978–79, second semester 1979–80 and 1980–81. Author of *Government and the Mortgage Debtor* (1944); *Industrial Discipline and the Arbitration Process* (1952), and numerous articles in the field of commercial law and other subjects.



EDWARD L. WELCH, B.S., J.D.

Adjunct Professor of Law

B.S. 1957, St. Louis University; J.D. 1960, Washington University. In private practice, East St. Louis and Edwardsville. Labor attorney with Allis-Chalmers and National Labor Relations Board, 1960–67; lecturer and adjunct professor of law at SIUC School of Law since 1973.



MARGARET J. WHITLEY, B.S.W., J.D.

Assistant Professor of Law

B.S.W. 1974, University of Kansas; J.D. 1977, Washington University School of Law. Admitted to practice in Missouri, 1977. Assistant attorney general, state of Missouri, 1977–78; assistant professor at SIUC School of Law since 1978.

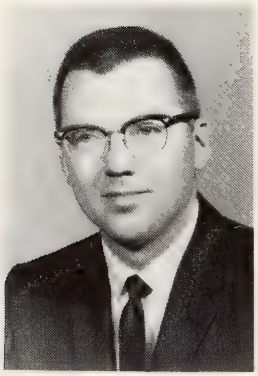
Visiting Faculty, Summer, 1980



FRANK W. MILLER, B.A., LL.B., S.J.D.

Visiting Professor of Law

B.A. 1946, LL.B 1948, S.J.D. 1954, University of Wisconsin. Admitted to practice in Wisconsin. AUS 1942–45. Graduate fellow 1948, University of Wisconsin; assistant professor 1948–53, associate professor 1953–56, professor 1956–62, Coles professor of criminal law and administration 1962–65, James Carr professor of criminal jurisprudence since 1965, Washington University. Author of *The Test of Factual Causation in Negligence and Strict Liability Cases* (with Becht, Washington University Press, 1961); *Prosecution: The Decision to Charge a Suspect with a Crime* (Little, Brown, 1969); *Criminal Justice Administration and Related Processes* (with Dawson, Dix and Parnas, Foundation Press, 1971, successor edition, 1976); *The Juvenile Justice Process* (Foundation Press, 1976); *The Mental Health Process* (Foundation Press, 1976); *Sentencing and the Correctional Process* (Foundation Press, 1976); articles in legal periodicals and in the *Encyclopedia Americana.*



R. DALE SWIHART, A.B., J.D.

Visiting Professor of Law

A.B. 1953, DePauw University; J.D. 1957, Indiana University. Admitted to practice in Indiana. Teaching associate, Indiana University, 1957–58; assistant and associate professor, University of New Mexico, 1958–64; associate professor, University of Texas, 1964–65; associate professor and professor, Washington University, since 1965. Author of articles in legal periodicals.

Clinical Law Program

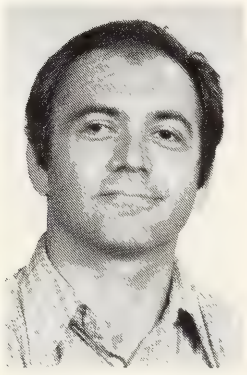
ROBERT H. DREHER, B.A., J.D., D.L.,
Associate Professor of Clinical Law and Director

RICHARD J. HABIGER, B.A., J.D.
Staff Attorney



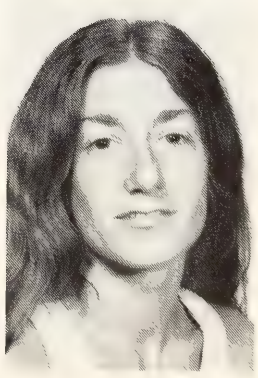
B.A. 1963, Rockhurst College; J.D. 1970, University of Missouri at Kansas City. Admitted to practice in Missouri and Illinois. Reginald Heber Smith Fellow, Legal Aid and Defender's Society of Kansas City, 1970–72; National Juvenile Law Center, St. Louis University, 1972–75; Staff attorney, Clinical Law Program, SIUC School of Law since 1975.

ROBERT JACOBINI, B.A., J.D.
Staff Attorney



B.A. 1969, University of Illinois; J.D. 1979, Southern Illinois University at Carbondale. Admitted to practice in Illinois. National Defense Fellow, 1972–73; legal consultant, SIUC School of Technical Careers, 1979. Staff attorney, Clinical Law Program, SIUC School of Law since 1980.

JANIS M. SUSLER, B.A., J.D.
Staff Attorney



B.A. 1971, University of Illinois; J.D. 1975, University of Illinois. Admitted to practice in Illinois. Staff attorney for Shackleford Community Institute Legal Service, Champaign, 1976. Staff attorney, Clinical Law Program, SIUC School of Law since 1976.

Law Library Staff

ELIZABETH S. KELLY, B.A., J.D., Assistant Professor of Law and Library Director

ELIZABETH W. MATTHEWS, B.A., M.S., Ph.D., Associate Professor in the Law Library and Librarian for Cataloging

ELIZABETH ANN PUCKETT, B.A., M.S.L.S., J.D., Assistant Professor in the Law Library and Assistant Librarian for Reader Services

HEIJA RYOO, B.B.A., M.L.S., Instructor in the Law Library and Librarian for Acquisitions.

LAUREL ANNE WENDT, B.A., M.L.S., J.D., Assistant Professor in the Law Library and Librarian for Reader Services

Administrative Staff

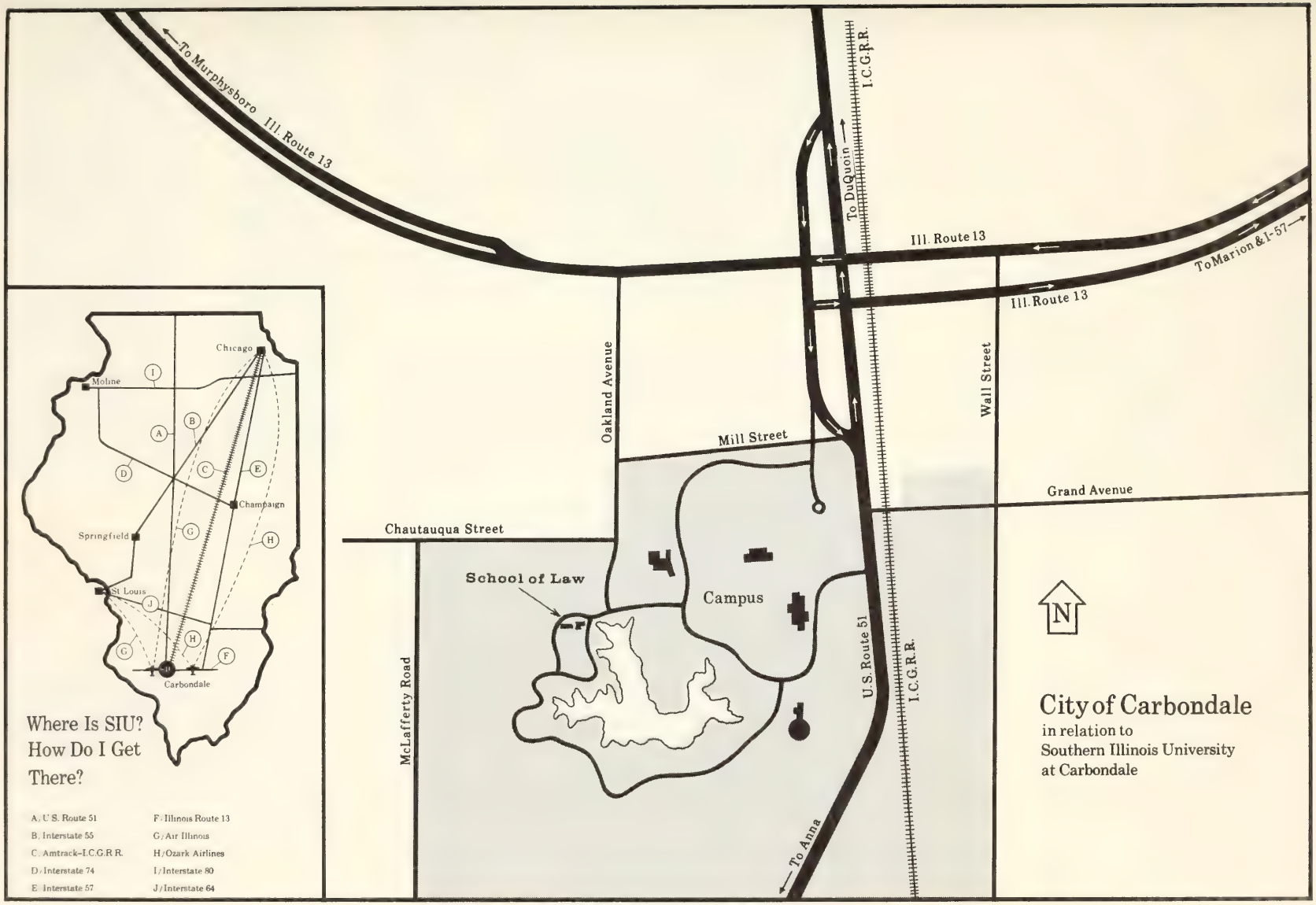
NORMA M. BROWN, B.A., *Registrar*

RITA L. MOSS, *Placement Director*

BEULAH M. NEHRING, *Admissions Secretary*

BOBBIE M. THOMPSON, *Secretary to the Dean*

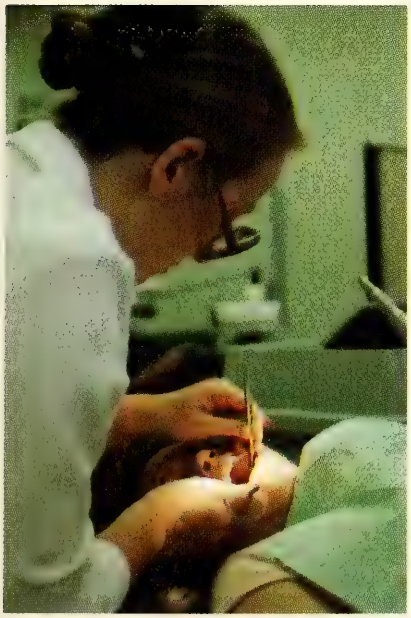
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Ill. Route 13
Oakland Avenue
Wall Street
Mill Street
Grand Avenue
Chautauqua Street
School of Law
Campus
McLafferty Road
U.S. Route 51
I.C.G.R.R.
To Anna
N
City of Carbondale
in relation to
Southern Illinois University
at Carbondale
Chicago
Moline
Champaign
Springfield
St. Louis
Carbondale
Where Is SIU?
How Do I Get
There?
A/U.S. Route 51
B/Interstate 55
C/Amtrack-I.C.G.R.R.
D/Interstate 74
E/Interstate 57
F/Illinois Route 13
G/Air Illinois
H/Ozark Airlines
I/Interstate 80
J/Interstate 64

Southern Illinois University at Carbondale Bulletin

1981-1982

School of Technical Careers Information









University Calendar

Spring Semester, 1981

Semester Classes Begin	Monday, January 19, 8:00 A.M.
Lincoln's Birthday Holiday	Thursday, February 12
Spring Vacation	Saturday, March 14, 12:00 NOON—Monday, March 23, 8:00 A.M.
Final Examinations	Monday, May 11—Friday, May 15
Commencement	Saturday, May 16

Summer Session, 1981

Eight Week Session Begins	Monday, June 15, 7:30 A.M.
Independence Day Holiday	Friday, July 3
Final Examinations	Thursday and Friday, August 6–7
Commencement	Saturday, August 8

Fall Semester, 1981

Semester Classes Begin	Monday, August 24, 8:00 A.M.
Labor Day Holiday	Monday, September 7
Thanksgiving Vacation	Saturday, November 21, 12:00 noon—Monday, November 30, 8:00 A.M.
Final Examinations	Monday, December 14—Friday, December 18

Spring Semester, 1982

Semester Classes Begin	Monday, January 18, 8:00 A.M.
Lincoln's Birthday Holiday	Friday, February 12
Spring Vacation	Saturday, March 13, 12:00 noon—Monday, March 22, 8:00 A.M.,
Final Examinations	Monday, May 10—Friday, May 14
Commencement	Saturday, May 15

Southern Illinois University at Carbondale is an Equal Opportunity/Affirmative Action institution in accordance with civil rights legislation and does not discriminate on the basis of race, religion, national origin, sex, age, handicap, or other factors prohibited by law in any of its educational programs, activities, admissions, or employment practices. Concerns regarding this policy should be referred to the Affirmative Action Office, Southern Illinois University at Carbondale, Anthony Hall, Room 104, telephone 618–536–6618.



Southern Illinois University at Carbondale Bulletin

1981-1982 School of Technical Careers Information

This publication is not an offer to contract or a contract. The Board of Trustees of Southern Illinois University, University executive officers, and their agents reserve the right to change information without notice when circumstances warrant such action.

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Southern Illinois University at Carbondale Bulletin (USPS 506–080)

Volume 22, Number 4, September 1980

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The Southern Illinois University System

Southern Illinois University is one of four senior, public university systems in the state of Illinois. A multi-campus institution serving approximately 33,000 students, SIU was chartered in 1869 as Southern Illinois Normal University located only in Carbondale. In 1947, the name of the institution was changed by legislative action to Southern Illinois University. In 1949, Southern Illinois University began offering off-campus academic courses in the metropolitan East St. Louis area. This initiative led to the eventual development in 1965 of a separate campus in Edwardsville.

The mission and scope of the Southern Illinois University System is highly complex and emphasizes a commitment to quality education. As the Southern Illinois University System has grown and flourished, its constituent universities have developed programs of instruction, research, and public service which have attracted and served students, faculty, and staff not only from the region but from throughout the state of Illinois and the nation, and from overseas as well.

The Southern Illinois University System is governed by a nine-member Board of Trustees which sets policy that enables the institutions to carry out established missions and goals. The chancellor of the Southern Illinois University System is the chief executive officer of the system and is the primary link between the Universities and the Board of Trustees. The University presidents report directly to the chancellor and are responsible for the internal operations of the respective institutions.

School of Technical Careers

Programs, Specializations, and Options

Programs, specializations and related course groupings available for credit through the School of Technical Careers are listed here, with reference to the page on which a full description can be found. Programs leading to either the associate or baccalaureate degree are shown in **bold print.** Specializations and other course groupings are shown in *italic.*

Allied Health Careers Specialties. A program designed to prepare multi-competent technicians in the areas of clinical respiratory therapy, clinical medical laboratory technology, and clinical radiologic technology. Page 5.

Architectural Technology. Technician-level program leading to the A.A.S. degree. Approved by the American Institute of Architects. Schools of architecture do not generally accept full transfer of credit from this program toward professional degrees. Page 5.

Automotive Technology. Technician-level program leading to the A.A.S. degree. Allows the student to specialize in any of the various mechanical systems of the automobile. Does not include diesel mechanics or auto body repair. Page 7.

Aviation Technology. FAA-certified aircraft mechanics program with study in airframe and powerplant leading to the A.A.S. degree. *Helicopter Maintenance.* Third-year specialization available to those who have completed aviation technology. Page 8. *Flight Training.* May be taken by aviation technology students, but enrollment in aviation technology is not required of flight students. See separate listing on page 26.

Avionics Technology. Studies in aircraft electrical and communcations systems leading to the A.A.S. degree. Page 9.

Bachelor of Science in Technical Careers. Individualized programs designed for those who have completed a career-oriented associate degree program. Page 27.

Biomedical Equipment Technology. A third-year specialization in installation and maintenance of electronic equipment used to diagnose, prevent and cure disease and illness. Designed for those who have completed an associate degree electronics technology program. Page 19.

Commercial Graphics—Design. Studies in commercial art, graphics and design leading to the A.A.S. degree. Page 10.

Commercial Graphics—Production. Studies in printing and publishing, with concentrations on management or production specialties leading to the A.A.S. degree. Page 11.

Construction Technology—Building. Studies in light building construction leading to the A.A.S. degree. Page 12.

Correctional Services. Studies in institutional and community-based correction of criminal offenders leading to the A.A.S. degree. Page 13.

Court and Conference Reporting. A specialization in secretarial and office specialties which prepares the graduate to take the Certified Shorthand Reporters Examination and the state proficiency examination. Page 24.

Data Processing. See Electronic Data Processing. Also, a specialization in the proposed program in information processing and support systems.

Dental Hygiene. A two-year program accredited by the Council on Dental Education and Commission on Accreditation of the American Dental Association which leads to the A.A.S. degree. Page 13.

Dental Laboratory Technology. A course of study in the fabrication of dental prostheses and related areas which leads to the A.A.S. degree. Fully accredited by the Council on Dental Education and Commission on Accreditation of the American Dental Association. Page 16.

Electronic Data Processing. Studies in computer programming and operation which leads to the A.A.S. degree. Page 17.

Electronics Technology. Studies in basic principals of electricity and electronics, communication systems, digital circuits, and industrial systems which lead to the A.A.S. degree. *Bio-medical Equipment Technology* is a third-year specialization for those who have completed this or a comparable associate degree program. Page 18.

Fire Science Services. Offered at various off-campus locations; designed to provide holders of the A.A.S. degree with studies leading to the B.S. degree. Page 29.

Flight Training. A sequence of pilot training courses available to any SIUC student by which an individual can be licensed at any level from private to commercial pilot. Does not lead to a degree in and of itself, but may be included in some programs on the baccalaureate level. Pilot training is not part of the aviation technology program. Page 26.

Information Processing and Support Systems. A proposed associate degree program combining elements of the programs in secretarial and office specialties and electronic data processing which is expected to be in effect for Fall, 1981. Specializations in *Word Processing, Data Processing, Court and Conference Reporting,* and *Office Specialties* (with secretarial concentrations in such areas as medical, legal and administrative) will be offered. This program reflects trends in business, industry, and government toward the use of automated, integrated information systems. Additional information on this program is available from the director of the Division of Graphic Communications.

Law Enforcement. Provides academic background essential to support police training academy skills. Leads to the A.A.S. degree. Page 20.

Mortuary Science and Funeral Services. The only such program in a public university in Illinois; leads to the A.A.S. degree. Page 20.

Nursing. A unique program, building upon practical nursing or its equivalent to prepare graduates to write the Illinois State Board Nursing Examination for registered nurse. Page 6.

Off-Campus Programs. Bachelor of Science curricula in aviation management, electronic systems, fire science services, and health care services offered on military bases and at other locations throughout the U.S. Page 28.

Photographic and Audio-Visual Technology. Technical photography and photo lab finishing, with option in audio-visual equipment maintenance and operation. Leads to the A.A.S. degree. Page 21.

Physical Therapist Assistant. Associate degree program, approved by the American Physical Therapy Association, to allow the graduate to work under the supervision of a physical therapist. Page 22.

Secretarial and Office Specialties. Associate degree program which provides specialized courses with secretarial concentrations in such areas as legal, medical, and administrative. *Court and Conference Reporting* is one specialization leading to the associate degree. Page 23.

Tool and Manufacturing Technology (Numerical Control). Technician-level program in machine shop and fabrication which leads to the A.A.S. degree. Page 25.

Word Processing. A specialization in the proposed program in information processing and support systems.

The School

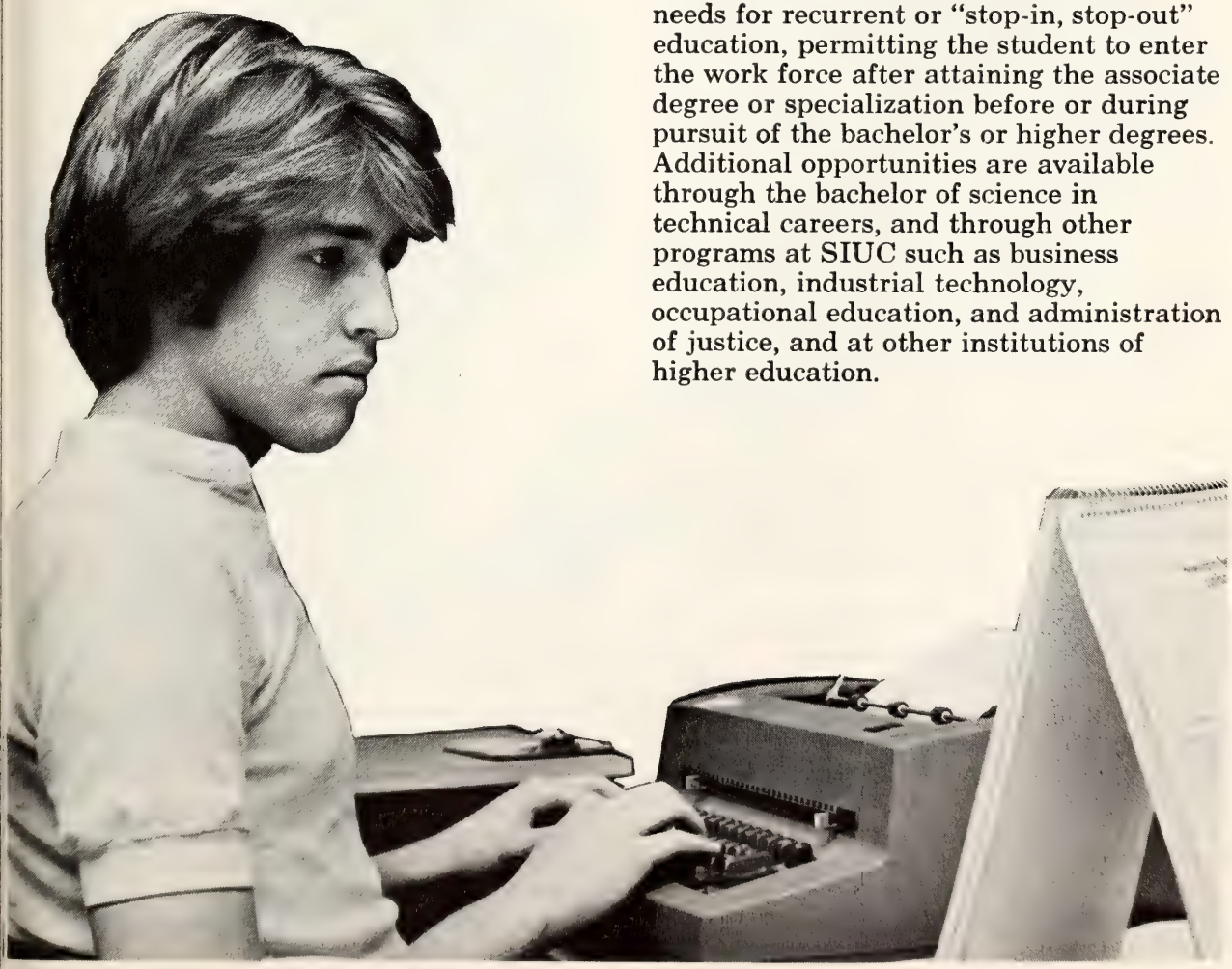
The School of Technical Careers (STC) is a unit unique to Southern Illinois University at Carbondale.

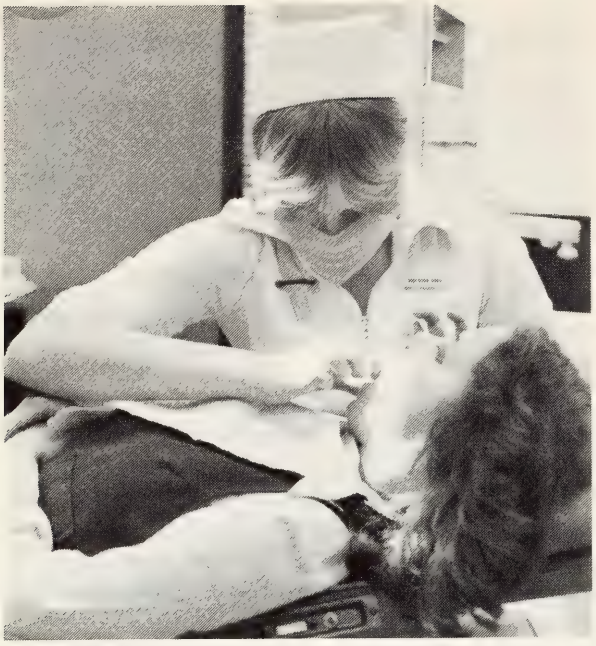
STC provides a full range of career-oriented programs, from the associate degree through post-associate specializations to individualized baccalaureate programs.

As one of the ten undergraduate units of Southern Illinois University at Carbondale, (SIUC), the School of Technical Careers offers both specialized training needed to meet career goals and the educational and cultural benefits of a major university to the more than 3,000 students enrolled in its various programs.

The broad scope of STC provides opportunities to its students that are not usually found in the vocational-technical setting; the added benefit of access to the variety of academic disciplines, physical facilities, programs, intercollegiate athletics, and amenities such as fraternity and sorority life gives STC students a collegiate experience unmatched at any similar school in the nation.

The School of Technical Careers is geared to serve the educational needs of its students in their pursuit of immediate and long-range goals. Its progressive levels of instruction accommodate students' needs for recurrent or "stop-in, stop-out" education, permitting the student to enter the work force after attaining the associate degree or specialization before or during pursuit of the bachelor's or higher degrees. Additional opportunities are available through the bachelor of science in technical careers, and through other programs at SIUC such as business education, industrial technology, occupational education, and administration of justice, and at other institutions of higher education.





New high school graduates, college transfer students, returning veterans, teachers seeking to keep abreast of advancement in their fields, adults who want to improve or re-direct their career preparation, military personnel applying their service training to academic credentials—all of these and more find a place in the School of Technical Careers.

Associate and post-associate career programs are offered in 23 fields. These are high-demand programs which are not readily available in community colleges, such as aviation technology, or programs which draw from other resources of the university, such as physical therapist assistant. The school conducts the state's only public mortuary science and funeral service program. Law enforcement and correctional services programs have the benefit of cooperation with state and federal penal institutions and with the university's Center for the Study of Crime, Delinquency, and Corrections.

At the associate degree level, it is possible to design specialized programs for students whose career goals are so highly individualized that they cannot be met by structured programs.

Post-associate specializations, such as court and conference reporting and helicopter maintenance, give students the opportunity to build upon associate degree work with added studies necessary for licensure or to develop skills needed to meet the special requirements of a particular career field. These specializations usually consist of two semesters of concentrated study.

The baccalaureate degree program in technical careers is unique to this school. It is designed to meet the educational needs of the career oriented student which are not filled by existing programs. Many types of previous educational and occupational experiences may be applied to this program. The student, in consultation with advisers, develops a course of study designed to meet the individual's own career interests.

In addition to its on-campus offerings, the school conducts baccalaureate programs at approximately 25 military installations throughout the nation which give service personnel the opportunity to combine service training with academic studies, and cooperates with community colleges in Illinois in providing degree programs in fire science services for active fire department personnel.

The most vital resource of any school is its fund of knowledge, the faculty which imparts that knowledge, and the students who seek and use it, but physical facilities and equipment also are important.

A number of STC programs now occupy a new three-story laboratory-clinic-classroom building near the SIU Arena, the first of two structures especially planned and equipped for career-oriented programs.

The second planned structure, STC II, is designed to meet the needs of the so-called "heavy" technologies, such as automotive, construction, and tool and manufacturing.

Aviation programs are conducted in facilities at the Southern Illinois Airport which also were designed especially for the educational function and house more than $6 million in instructional equipment.

Other STC programs, even though housed in temporary facilities at various locations on the Carbondale campus and at the former Vocational-Technical Institute campus near Carterville, are equipped and staffed to give students the finest education available.

This booklet gives a brief description of the School of Technical Careers, its programs, and the benefits available to its students as part of the educational community of Southern Illinois University at Carbondale.

Information on current admissions policies and procedures and tuition and fees can be found on page 30.

If you wish more specific information on the School of Technical Careers or any of its programs, consult the current Undergraduate Catalog of Southern Illinois University at Carbondale, or write to the coordinator listed with each program at the address shown inside the back cover.

Associate Degree Programs

Allied Health Careers Specialties

This program is especially designed to prepare specialists in combinations of two of the areas of clinical respiratory therapy, clinical medical laboratory technology, and clinical radiologic technology.

It is a highly individualized program which prepares graduates for service in medical facilities where they may be employed as single- or multi-competent technicians.

In general, students take a common core of coursework applicable to all three specialties. This includes courses such as Physiology, Human Anatomy, Chemistry, Technical Writing, Oral Reporting, College Algebra, and other specialty-related subjects.

Clinical studies in medical laboratory, respiratory therapy, and radiographic techniques are built upon this basic coursework. This portion of the program will be completed off-campus in health care facility settings.

Students in the clinical portion of the program should expect to spend about $60 to $100 per clinical specialty area for uniforms, books, and insurance in addition to tuition and fees.

For specific information on the program and its specialized application, contact:

Arch Lugenbeel, Coordinator



Architectural Technology

This associate degree program is structured so that the graduate is immediately employable in an

architectural office, yet has the solid basis for further development through education and experience.

The technically-trained individual is able to work in the area between the draftsman who simply produces drawings of another's ideas and the licensed architect who creates. The graduate of this program will find a variety of positions available within the architectural profession.

The program is approved by the American Institute of Architects. Faculty members are architects who hold professional degrees and have many years of professional and teaching experience.

During their two years of study, students gain an understanding of the architectural and design professions and other components of the building industry, the design and production process, and the historical, mathematical, and physical factors involved. The program covers building materials, systems, and construction, as well as preparation and interpretation of technical communications such as architectural drawings, models, charts, and architectural delineations. Currently, the curriculum includes:

First Semester
Architectural Drafting
Architectural Graphics
Architectural History
Technical Mathematics
English Composition

Second Semester
Architectural Drawings I
Architectural Design I
Public Speaking
Applied Physics
Technical Writing

Third Semester
Architectural Drawings II
Architectural Design II
Architectural Engineering
Architectural Systems
Architectural Surveying

Fourth Semester
Architectural Drawings III
Architectural Design III
Architectural Engineering II
Architectural Estimating
Architectural Specifications

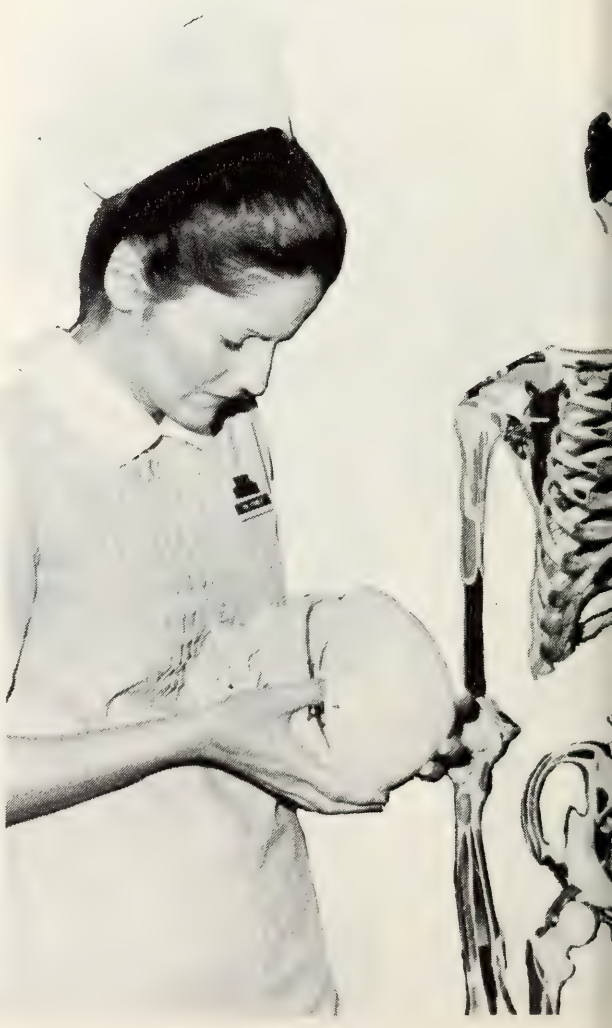
Opportunities for the architectural technician in all phases of the industry are limited only by the individual's own talent and drive. Technicians may prepare architectural working drawings, write specifications, or prepare mechanical and electrical drawings. They may be inspectors or estimators, or may coordinate architectural, structural, mechanical, and electrical portions of the work. Talented individuals may be given responsibility for designing total projects and preparing presentation drawings or models.

Students spend about $250 for equipment, supplies, and field trips.

For more specific information, contact:
Gene Trotter, Coordinator

Associate Degree Nursing

This program, offered through the Southern Illinois Collegiate Common Market, is developed as an open curriculum model and is designed to provide career mobility for persons who have completed a practical nursing program or its equivalency through formal or informal methods. Graduates are eligible to write the Illinois State Board Nursing Examination and become registered nurses.



A comprehensive testing program allows students the opportunity to validate past experiences. After assessment by the nursing faculty, an individualized prescriptive type educational program is developed for each student.

In addition to the prerequisite practical nursing curriculum or equivalent, the program normally requires two semesters and a summer term for completion of the associate in applied science degree in nursing. However, because nursing courses follow a unique calendar, the student's schedule will extend beyond normal semester periods.

In addition to gaining admission to the University, the practical nurse applicant must achieve satisfactory scores on the Psychological Corporation Pre-Entrance Examination for Schools of Nursing and satisfy program criteria of health, personal references, and interviews.

Those individuals seeking admission as "equivalent to a practical nurse" must satisfy the above criteria as well as satisfactorily demonstrate nursing knowledge and clinical skills by both practical and written exams.



Additional expenses of approximately $500 are required to cover textbooks, uniforms, pre-admission examinations, liability insurance, workshops, and other items. Since students travel to several hospitals for clinical experience, it is essential that they have access to private transportation.

The program is designed to prepare graduates for the practice of nursing as defined in the Illinois Nurse Practice Act and meets the requirements for accredited schools in associate degree nursing in Illinois.

For more specific information, contact: Alice Hees, Coordinator

Automotive Technology

This associate degree program is unique because instruction progresses through an orderly sequence of classroom and laboratory experiences that emphasize "why" more than "how." Its basic objective is to provide students with a solid foundation of knowledge, experience, and skills that will assist in job entry and career advancement in many facets of automotive service and related industries.

Developments in the automotive industry and the trend to more fuel-efficient, less polluting motor vehicles require highly skilled service technicians who specialize in specific service areas. This program recognizes the various needs of the industry and the needs of its future technicians and offers the flexibility for the student to develop these required specialties, with the option of continuing past the associate degree to obtain further technical specialties.

During the first year, each student takes a series of core courses which provide the skills and technical information essential to all service technicians. During the second year the students may choose any four of eight possible specialties. In most cases, these will deal with advanced instruction in areas covered in the core courses.

Current requirements for the associate degree are:

First Semester

Automotive Engines and Fuel Systems Lab
Automotive Engines and Fuel Systems Theory
Brakes and Chassis Laboratory
Brakes and Chassis Theory
Related Shop Laboratory
English Composition

Second Semester
Engine Electrical Laboratory
Engine Electrical Theory
Drive Trains Laboratory
Drive Trains Theory
Technical Mathematics
Public Speaking

Third Semester
Applied Physics
Courses in Areas of Specialization

Fourth Semester
Technical Writing
Courses in Areas of Specialization
Chemistry of Fuels and Lubricants

Specialization: with the aid of an adviser and subject to availability of courses, the student will choose any four (two per semester) lab and theory combination courses:

- Automatic Transmissions
- Automotive Power Accessories
- Automotive Air Conditioning
- Advanced Fuel and Emissions Systems
- Advanced Brakes and Chassis
- Advanced Engine
- Fuel Injection Systems

The student should expect to spend about $350 for a basic tool kit of domestic and metric tools and supplies.

Upon completion of requirements for the associate degree, and at the option of the student, additional automotive studies may be continued for part or all of a third year in areas in which courses are available. This allows the student to develop additional skills and knowledge in the various areas of specialization offered.

Graduates of the program find a wide range of opportunities in service, sales, research, and manufacturing areas.

For more specific information, contact:
James White, Coordinator

Aviation Technology

Graduates of this program are qualified to obtain the Federal Aviation Agency airframe and powerplant certificate and are prepared to work as maintenance technicians in airlines or general aviation. The associate degree program can be completed in two academic years, or four semesters, but students wishing to qualify for the FAA A&P license must complete an additional eight-week summer term.



Helicopter maintenance is available as a third-year specialization to graduates of this or similar programs.

Aviation Technology is conducted in a combination hangar-laboratory-classroom facility at the Southern Illinois Airport between Carbondale and Murphysboro. It is offered as part of the most comprehensive aviation training program in an Illinois public university and is acclaimed by many in the aviation industry and government as the best program in the nation.

It is fully accredited by the FAA.

Equipment and training aids valued at more than $6 million are used in teaching reciprocating and jet powerplants, hydraulics, fuel systems, ignition-starting systems, carburetion and lubricating systems, instruments, and powerplant testing in a coordinated program of classroom and laboratory work. Students are prepared an animated training panels representing such modern jet aircraft as the Boeing 707 and 727, and Douglas DC8 and DC9.

Current requirements for the associate degree are:

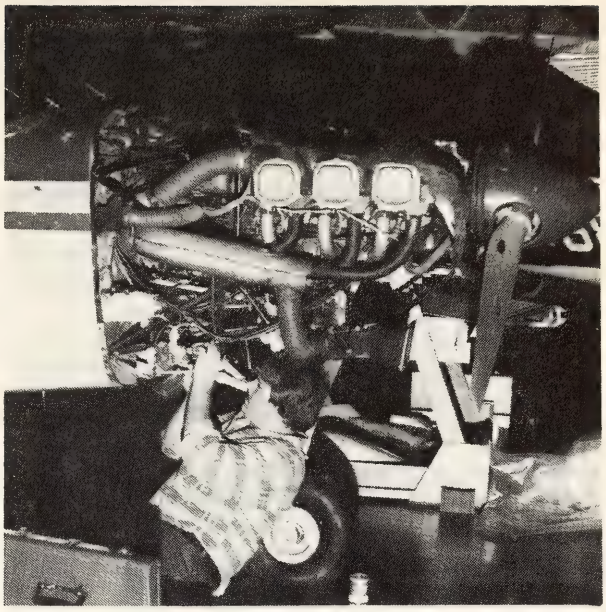
First Semester
English Composition
Technical Math
Material & Metal Processing
Aircraft Electricity
Aircraft Instruments and FAR

Second Semester
Technical Report Writing
Aircraft Structures
Aerodynamics and Weight and Balance
Aircraft Hydraulics
Cabin Environment and Jet Transport Systems

Third Semester
Introduction to Psychology
Airframe and Powerplant Electrical & Ignition Systems
Reciprocating Powerplant
Carburetion, Lubrication

Fourth Semester
Public Communications
Social Science Elective
Propellers
Powerplant Testing
Jet Propulsion Powerplant

Summer Session (Required for FAA A&P)
Aircraft Inspections
Powerplant Inspections



Helicopter Maintenance. This area is available as a third-year specialization and is made up of four specialized courses offered in two semesters:

First Semester
Helicopter Theory and General Maintenance Practices
Helicopter General Maintenance Laboratory

Second Semester
Helicopter Power Train and Inspection
Helocipter Power Train Laboratory

Students spend about $300 for a tool kit and special study materials.

Graduates of the program in aviation technology are in demand as skilled technicians throughout the rapidly-growing aviation industry.

Students in the aviation technology program may enroll also in flight training.

Enrollment in the program is limited by requirements of FAA accreditation. In recent years, admission has been closed well in advance of the Fall semester, and those interested in enrolling should apply early.

For more specific information, contact:
Larry Staples, Coordinator

Avionics Technology

This associate degree program prepares graduates to work as skilled technicians in aviation electronics in the development, installation, and maintenance of sophisticated systems required for modern aviation.

Because STC has an excellent program in electronics technology, students are able to choose between two options in avionics. Option I is offered entirely through the aviation technology facilities.

Option II offers first-year courses through the program in electronics technology, providing for the student who already has or wishes a more extensive background in basic electronics. Students should consult with supervisors of electronics and avionics for specific differences before choosing an option.

The program offers basic AC and DC electricity, vacuum tubes, transistors and integrated circuits, aircraft integrated flight systems, airborne radar systems, aircraft flight controls and instrumentation systems, transmitters and receivers, aircraft communications and navigation systems, and pulse equipment, including D.M.E. and transponders.

Requirements for the associate degree can be completed in two academic years. or four semesters, but students who wish to meet strict federal and industry requirements should plan to take a group of courses offered in an additional summer term.

Current requirements for Option I are:

First Semester
English Composition
Technical Math
Material and Metal Processing
Aircraft Electricity
Aircraft Instruments & FAR
Applied Science

Second Semester
Aircraft Hydraulics
Technical Report Writing
Social Science Elective
Aerodynamics and Weight & Balance
Cabin Environment & Jet Transport Systems
Aircraft Electrical & Structural Systems

Third Semester
Avionics Electronics Circuits
Flight System Theory
Avionics Laboratory III

Fourth Semester
Aircraft Communications and Navigation System Theory
Avionics Laboratory II
Avionics Logic Circuits and Pulse System Theory
Avionics Laboratory IV

Summer Session
Avionics Radar System Theory
Avionics Laboratory V
FCC Regulations
Public Communications

Requirements for Option II are:

First Semester
DC-AC Circuit Analysis
Electronics Devices
DC-AC Circuit Lab
Technical Mathematics

Second Semester
Electronics Circuit Theory
Propagation and Coupling
Electronics Circuit Lab
Applied Calculus
English Composition

Third Semester
Aircraft Instruments and FAR
Flight System Theory
Avionics Laboratory III
Social Science elective

Fourth Semester
Aircraft Communications and Navigation System Theory
Avionics Laboratory II
Avionics Logic Circuits and Pulse System Theory
Avionics Laboratory IV

Summer Session
Same as Option I

Students should expect to purchase basic tool kits and study material at an approximate cost of $90.

Graduates of the program are prepared to install, maintain, test, and repair airborne communications and navigation systems and radar equipment. They find opportunities with airlines, in general aviation, and in aircraft manufacturing.

For more specific information, contact:
Larry Birkhead, Coordinator

Commercial Graphics—Design

The advertising business is a growing field, presenting ever-increasing opportunities for men and women who have creative and artistic ability. Trained people are needed to develop story illustrations, advertising layouts, billboard design, point-of-purchase displays, package designs, direct mail pieces, annual report designs, television commercials, finished lettering, fashion illustrations, airbrush and photo-retouching, and many others.

Students in this program develop multiple art skills so that they may qualify for initial positions in many different areas of advertising art and design. Each graduate has a base upon which to build a career according to individual interests and talents.

Each graduating design student is required to score 90 percent or above on a vocabulary proficiency test and to have compiled a professionally acceptable portfolio of work.

Current requirements for the associate in art degree include:

First Semester
Art Appreciation (History)
Artistic Anatomy and Color Perception I
Technical Drawing for Graphic Design
Graphic Layout and Typography I
English

Second Semester
Artistic Anatomy and Color Perception II
Airbrush and Photo-Retouching
Copyfitting
Graphic Layout and Typography II
Individual Study—Photography
Psychology
Public Speaking

Third Semester
Advertising Graphics
Publication Graphics
Technical Writing

Fourth Semester
Graphic Design and Advertising Illustration
Dimensional Design
Job Orientation

Faculty members are professionals in the field, and the program is served by an advisory committee whose members are active in the advertising and graphic design profession.

This is an extremely high demand program; those wishing to enroll should apply one year in advance.

The student should expect to spend approximately $1000 to $1200 for supplies, equipment, and materials over a two-year period.

For more specific information, contact:
John L. Yack, Coordinator

Commercial Graphics—Production

The growing printing and publishing industry offers many career opportunities for trained production specialists and



persons with mechanical skills and abilities in management areas.

This associate degree program is designed to allow each student an individualized program which will permit concentration on management and production coordination or upon specialties within production such as lithographic stripping and plate-making.

Limited numbers of students are admitted to this program and all are advised in the development of a coordinated program of coursework on an individual basis.

Those who wish to prepare for a career in management, for example, will study such subjects as business law, office management and supervision, accounting, and other related subjects.

Production students gain experience in the most up-to-date printing methods in a fully equipped shop. The student learns production and press procedures, lithographic photography, stripping and platemaking, offset presswork, estimating and cost, and production and finishing processes.

For specific information on this program, contact:

H. R. Soderstrom, Coordinator

Construction Technology—Building

This curriculum is designed to meet the needs of the individual who is entering the construction industry on the technician level.

The technician must be able to talk the language of the industry and interpret instructions. The technician also must be capable of working in the area between the architect and the contractor who is expected to carry out the mandates of the design.

Sufficient theory and laboratory work is included in this program to allow the graduate to perform in areas of material testing, drafting, construction methods, estimating, and surveying.

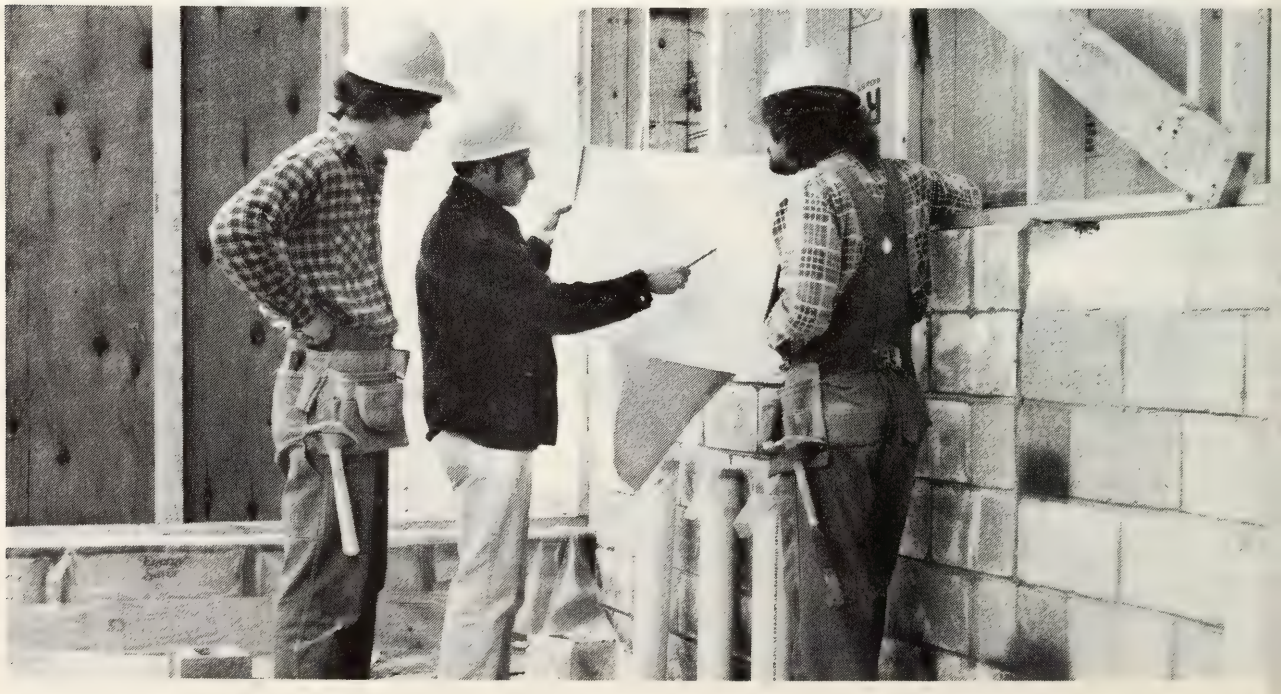
Current requirements for the associate in applied science degree include:

First Semester
Drafting
Construction Materials
Basic Construction I
Technical Mathematics

Second Semester
Building Construction Surveying
Basic Construction II
Statics and Strength of Materials
Applied Physics

Third Semester
Statics and Strength of Materials
Construction Materials
Advanced Construction I
English Composition

Fourth Semester
Construction Cost Estimating
Advanced Construction II
Technical Writing
Applied Accounting I
Elective (Social Science or Humanities)



Students should expect to spend about $50 for instruments and supplies.

The curriculum is designed to accept both beginning freshmen and transfer students. Those entering with industrial experience or courses taken in the military may earn credit by proficiency or transcript evaluation.

Graduates may find employment as construction engineering aids, assistants to a contractor supervisor, building materials salespersons, inspectors, and estimators.

For more specific information, contact:
Harold W. Osborn, Coordinator

Correctional Services

Individuals who are interested in the broad field of corrections will find that this associate degree program offers a general background of understanding as well as specific knowledge and skills that will prepare them for the area in which they wish to work.

The demand for people trained in all phases of correctional services—from institutional custodial and counseling personnel to probation and parole officers—is growing with the increasing concern of society with dealing with the problems of crime.

The individual who is interested in a career that provides satisfaction through helping others will find a wide range of opportunities in this field. Both men and women are needed to work with juveniles and adults, in institutions and in the community.

This program is designed to provide educational opportunity for the individual who is entering the field and to assist those who are already employed and wish to upgrade their abilities. It combines classroom work with field study and a period of internship in which the student works with a correctional agency or in a social service agency.

Students learn various counseling theories and methods through classroom and group participation. In order to gain a working knowledge of these methods, students have an opportunity to demonstrate in actual therapeutic settings the skills they have gained.

Emphasis is placed upon supervision and administration of institutions, probation, parole, and social service agencies. Individual intrapersonal as well as organizational skills can be gained which will be an asset to the individual inside or outside the criminal justice system.

Current requirements for the associate degree include:

First Semester
Introduction to Criminal Justice
Treatment Methods in Criminal Justice
Interpersonal Relations in Criminal Justice
Supervision in Criminal Justice
English Composition

Second Semester
Treatment Practicum
Introduction to Corrections
Probation, Parole, and Community-Based Corrections
American Government and Politics
Technical Report Writing

Third Semester
Criminal Behavior
Criminal Law I
The Sociological Perspective
Public Communication
Introduction to Psychology

Fourth Semester
Criminal Law II
Internship in Criminal Justice Practice
Elective

Persons already employed in the correctional field may enroll in the program on a part-time basis. The faculty will work with these individuals in arranging schedules compatibly with their duty schedules.

For more specific information, write:
James Hendricks, Coordinator

Dental Hygiene

The dental hygienist is an important member of the dental health team and is the only one other than the dentist who is permitted by law to work directly in the mouth of the patient. All states require the dental hygienist to be licensed and to work under the supervision of a licensed dentist.

The hygienist's area of responsibility includes oral prophylaxis, chairside assisting, x-ray examinations, laboratory techniques, office and administrative procedures, dental health education, and other areas of preventive dentistry.

This program is fully accredited by the Council on Dental Education and Commission on Accreditation of the American Dental Association.

First-year enrollment is restricted by availability of facilities. In addition to university application procedures, there is

STC Programs and Their Locations

School of Technical Careers Building

Administration

Allied Health Careers Specialties

Architectural Technology

Associate Degree Nursing

Baccalaureate Studies

Dental Hygiene

Dental Laboratory Technology

Electronics Technology

Mortuary Science and Funeral Service

Secretarial and Office Specialties

Technical Careers Annex

Commercial Graphics—Design

Photographic and Audio Visual Technology

Faner Hall

Correctional Services and Law Enforcement

Electronic Data Processing

Wham Education Building

Physical Therapist Assistant

Southern Illinois Airport

Aviation Technology

Avionics Technology

Helicopter Maintenance

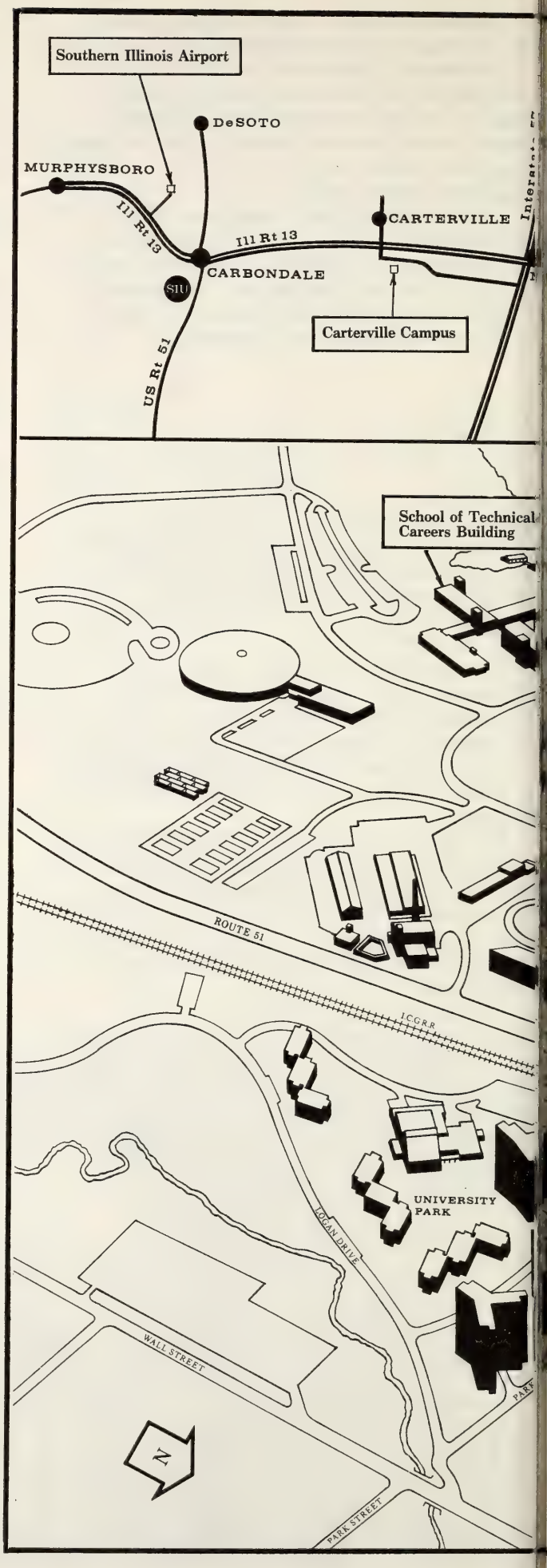
Flight Training

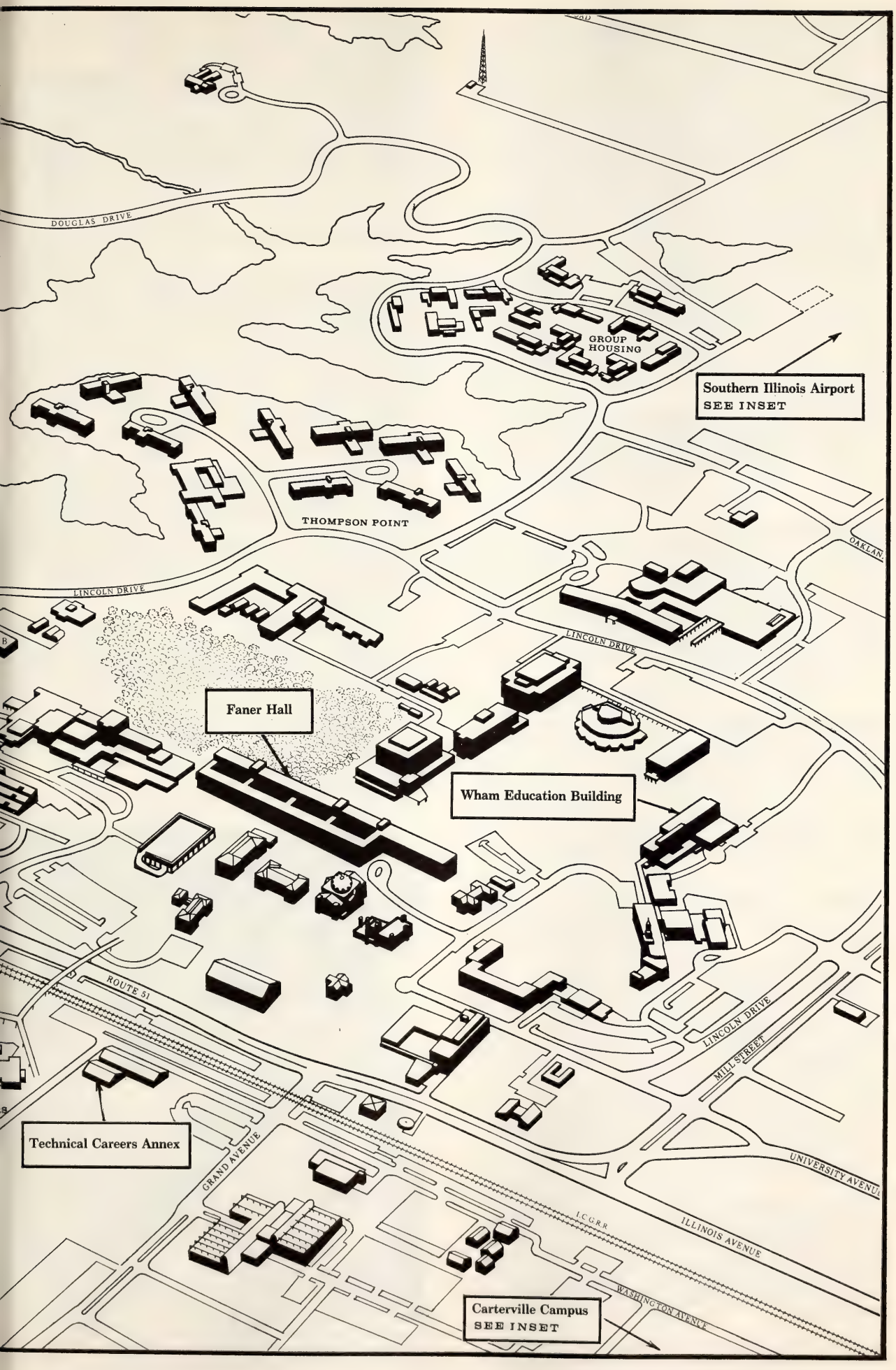
Carterville Campus

Automotive Technology

Construction Technology

Tool and Manufacturing Technology (Numerical Control)




DOUGLAS DRIVE
GROUP HOUSING
Southern Illinois Airport
SEE INSET
THOMPSON POINT
OAKLAN
LINCOLN DRIVE
LINCOLN DRIVE
Faner Hall
Wham Education Building
ROUTE 51
LINCOLN DRIVE
MILL STREET
Technical Careers Annex
GRAND AVENUE
UNIVERSITY AVENU
I.C.G.R.R.
ILLINOIS AVENUE
WASHINGTON AVENUE
Carterville Campus
SEE INSET

a separate admissions packet for the program. There are several important deadline dates in the application process.

Persons wishing to enroll in the Fall 1981 semester must have taken the Dental Hygiene Aptitude Test no later than November 1980, and must have completed the admissions process by January 15, 1981. Fifty-six applicants are accepted.

Applicants for the Fall 1982 semester must take the aptitude test no later than November 1981, and must complete the admissions process by January 15, 1982.

The aptitude test is sponsored by the American Dental Hygiene Assn., Suite 1136 666 N. Lake Shore Dr., Chicago IL 60611, and information on testing sites and dates is available from that organization.

Current requirements for the associate of applied science degree include four semesters and an eight-week summer session:

First Semester
English Composition
Public Communication
Survey of Chemistry
Anatomy of the Head and Neck
Pre-Clinical Dental Hygiene
Ethics, Jurisprudence, and Office Management

Second Semester
Survey of Chemistry
Survey of Human Anatomy
Principles of Physiology
Histology and Embryology
Pre-Clinical Dental Hygiene
Dental Radiology

Summer Session
Microbiology
Nutrition
Clinical Dental Hygiene
Dental Radiology

Third Semester
Pathology
Community Dentistry
Dental Materials and Assisting
Clinical Dental Hygiene and Radiology
Dental Pharmacology and Anesthesia
Periodontology

Fourth Semester
Introduction to Psychology
Social Perspectives
Community Dentistry
Clinical Dental Hygiene and Radiology
Seminar

The dental hygiene student has expenses of about $2600 in addition to University tuition and fees. This covers the cost of instruments, uniforms, liability insurance, two weeks of internship at the SIU School of Dental Medicine at Alton, Illinois, and a basic professional library.

For more specific information, contact:
Mary Edwards Callaghan, Coordinator

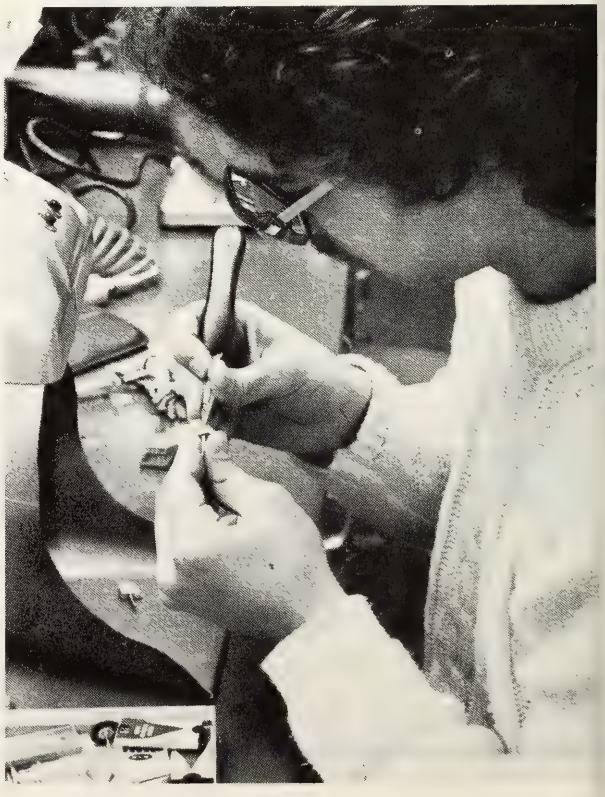
Dental Laboratory Technology

Dental laboratory technology is concerned with the construction of replacements for natural teeth which have been lost by disease or accident. The relationship of the dental technician to the dentist is similar to that of the pharmacist to the physician or the optician to the eye specialist. The technician is an important member of the dental health team.

The School of Technical Careers has been a pioneer in approved education for dental technicians. The curriculum and staff are fully accredited by the Council on Dental Education and Commission on Accreditation of the American Dental Association.

Applicants to this program must be admitted both to the university and to the program through two separate application procedures.

Each student must purchase a kit of instruments, to be retained after graduation, at a cost of approximately $225 each year.



Current requirements for the associate degree program are:

First Semester
Tooth Anatomy
Complete Dentures
Advanced Complete Dentures
Orientation to Dental Technology
English Composition
Inorganic Chemistry

Second Semester
Removable Partial Dentures
Advanced Removable Partial Dentures
Dental Orthodontics and Pedodontics
Oral Anatomy
Science of Dental Materials
Introduction to Physiology

Third Semester
Dental Occlusion
Beginning Crown and Bridge
Advanced Crown and Bridge
Professional Ethics
Science of Dental Materials
Technical Writing

Fourth Semester
Dental Ceramics
Advanced Dental Ceramics
Dental Lab Specialty
Public Communication
Applied Accounting

A number of these courses are conducted in five-week modules.

Career opportunities for graduates are excellent. The trained dental technician not only has a wide choice of geographic location, but can select from a variety of employment situations, such as dental offices, commercial laboratories, or the dental supply industry. Many are self-employed.

For more specific information on the program, contact:
Dennis Laake, Coordinator

Electronic Data Processing

The growth of electronic data processing in both the expansion of installations and in the complexity of hardware and software has increased the need for competent computer programmers and systems analysts. Accurate and effective information processing is essential in any organization or institution.

Even though there are more computer programmers working today than ever before, data processing is still a growing, challenging field. The task of persons who design data processing application is becoming more complex with the increasing power of computers and related information processing equipment.

This associate degree program is offered in a well-equipped center, with a curriculum designed to give the student much more than a good general working knowledge of a programming language. Graduates should have a sufficient depth of understanding to grow with new demands placed upon them.

Current requirements of the program include:

First Semester
Accounting I
Introduction to Business
Introduction to Data Processing
Introduction to Programming
English Composition

Second Semester
Data Processing Math
COBOL I
RPG
Accounting II
Technical Writing
Speech

Third Semester
Introduction to Systems and Application
COBOL II
JCL
Database
Psychology

Fourth Semester
Assembler
Data Processing Project
Systems Design and Development
Data Communications

An outstanding feature of the program is the availability of an IBM 370 computer for student use. The hardware and software configuration is representative of large computer installations in industry. The data center is accessible for approximately 100 hours per week.

Graduates are qualified to apply currently available programming techniques to a defined problem with a minimum of supervision, program any particular computer with a minimum of orientation, understand and master special techniques as the point of need occurs, and communicate properly documented programming decisions to other personnel concerned.

For more specific information, contact:
Byron Johnson, Coordinator

Electronics Technology

Electronics is one of the most rapidly developing and expanding of the modern technologies. Less expensive electronics components have opened new horizons in electronics applications. This rapid development has created a great demand for men and women to serve as technicians. Those capable of working as part of the team in the design and application of the technology have a challenging future where chances for advancement are excellent and salaries compare excellently with those in other skilled occupations.



Classroom and laboratory experience in electronics and general education have been combined in a carefully balanced course of study for this associate degree program in which students gain the knowledge and manual skills necessary to take their place on the technical team.

Each student spends at least two hours in the laboratory every day throughout the curriculum, developing the ability to apply classroom theory to real life situations. Students see the application of general studies such as math, physics, and English by solving problems connected with laboratory equipment and reporting these problems in data sheets, graphs, and technical reports.

Currently, the program includes these studies:

First Semester
Electronics Devices
DC AC Circuit Analysis Theory
DC AC Circuit Analysis Lab
Technical Math

Second Semester
Electronics Circuit Theory
Electronics Circuit Lab
Public Speaking
English Composition

Third Semester
Telemetry and Industrial Circuits Theory
Telemetry and Industrial Circuits Lab
Electronic Systems Analysis
Physics

Fourth Semester
Digital Circuits Theory
Digital Circuits Lab
Computer Programming
Propagation and Coupling
or

FCC Test Preparation
Technical Writing

Workbooks and supplies required for laboratory courses cost approximately $150.

An accelerated program is available for individuals who have prior electronics experience in such settings as high schols, area vocational centers, community colleges, and the military. A proficiency test is given to determine the point of entry into the electronics curriculum. This program is designed to meet the needs of advanced individuals by offering substantial savings in time and money.

For example: A vocational center student would take and pass the proficiency test while visiting campus in April of his/her senior high school year. The proficiency test would address the topics covered in ELT 101, DC AC Circuit Analysis Theory; ELT 111, DC AC Analysis Laboratory; and ELT 121, Electronics Devices. Upon successful completion of this proficiency the student would be given fourteen (14) semester hours credit. In the summer semester, or approximately two weeks after high school graduation, the student would enroll in courses ELT 102, Electronics Circuit Theory; and ELT 112, Electronics Circuits Laboratory. In August of that year the student would begin the second year courses. The following spring, or one year after graduation from high school the student will have completed all electronics requirements for the Associate in Applied Science degree. The student may be short some general studies requirements, but these courses should be available in the summer semester following completion of electronics requirements.

Two indicators of the quality of the program are student performance in competition and placement of graduates. STC students regularly sweep the field in the digital electronics portion of the annual trouble shooting contest conducted by the Illinois Association of Electricity and Electronics Educators. Graduates are employed in indirect and direct support positions by such concerns as Bell Labs, IBM, Texas Instruments, Argonne Labs, International Business Machines, Univac, and Los Alamos Labs.

For more specific information, write to:
Paul Harre, Coordinator

Optical Electronics. This is an applied course intended as a post-associate offering, primarily for electronics majors, providing exposure to the technical aspects of an important emerging area of electronics. The student is required to identify the basic principles of light physics as they relate to laser and fiber optic theory. Integration of electronic control, measuring, and sensing devices is accomplished within an industrial and communication framework. A systems approach is utilized involving laser, fiber optic, and electronic discrete and integrated components.
Optical Electronics Theory
Optical Electronics Laboratory

Biomedical Equipment Technology. This sequence of courses is offered as a third-year specialization beyond the associate in applied science in electronics technology.

The biomedical equipment technician is among the newest of the specialists working in the electronics field. The job has developed with the creation of complex electronic equipment used to diagnose, prevent, and cure disease and illness.

The technician is called upon to install, maintain, calibrate and repair biomedical equipment. This includes the heart pacemaker, electro-cardiograph, heart-lung machine, artificial kidney, chemical analyzer, radiation meter and spectrophotometer.

Applicants for this specialization should have completed either the associate degree program in the School of Technical Careers or its equivalent. An equivalent program is one which has included study in the fundamentals of electricity, electronics, electro-mechanics, digital electronics, and industrial instrumentation.

Those who have not completed such a program may be admitted to the specialization with the understanding that they will take the required basic courses in addition to those required for the specialization. In this case, it will take longer than the normal two semesters to complete the necessary course work. Evaluation of previous work is done by the faculty.

Current requirements for the specialization include:

First Semester
Introduction to Electronic Biomedical Instrumentation
Electronic Biomedical Instrumentation Lab
Physiology

Second Semester
Biomedical Internship

Courses related to specialization selected from recommended list

For more specific information on this specialization, write to:
Paul Harre, Coordinator

Law Enforcement

Law enforcement officers in modern society must deal with situations undreamed of a generation ago, and use methods of crime prevention and detection that are the result of new technologies.

It is no longer sufficient for the law enforcement officer merely to be expert in the use of firearms, personal defense, or crowd control; the police officer must be a mature individual who knows a great deal about people and understands their motivations and is able to handle a diversity of problems.

This is the need that this associate degree program is designed to meet. It does not include the purely police skills which are offered in police academies, but emphasizes the broad range of knowledge upon which these skills are based.

Courses are designed to prepare students as practitioners in the law enforcement field on the local, state, and federal level. The program provides the student with both theoretical and practical course work in all aspects of law enforcement.

Currently, the program consists of these courses:

First Semester
Introduction to Criminal Justice
Criminal Behavior
Supervision in Criminal Justice
Interpersonal Relations in Criminal Justice
English Composition

Second Semester
Criminal Investigation
Police Administration
Probation, Parole, and Community Based Corrections
Technical Report Writing
American Government and Politics

Third Semester
Criminal Law I
Introduction to Psychology
The Sociological Perspective
Public Communication
Elective

Fourth Semester
Criminal Law II
Internship in Criminal Justice Practice
Elective

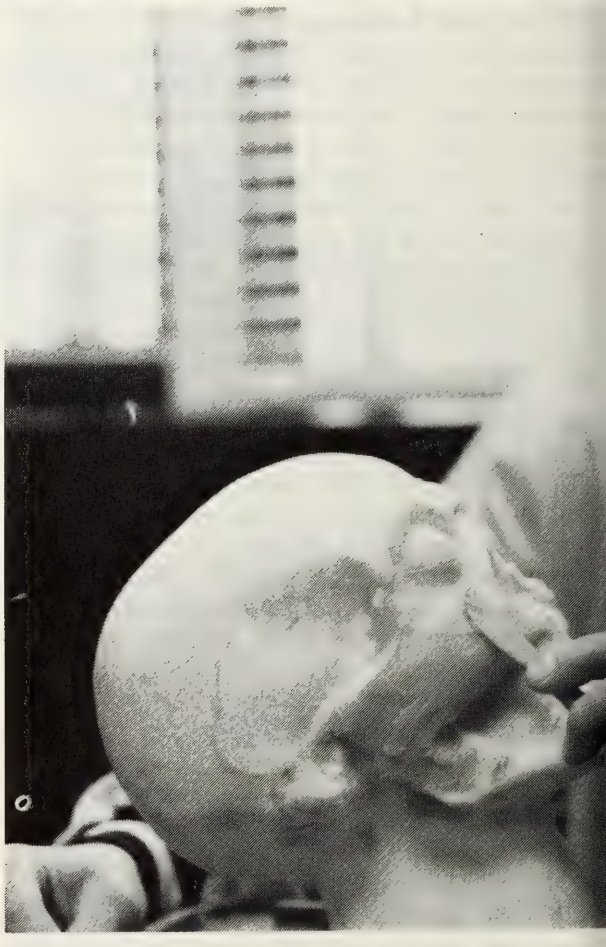
Both men and women are enrolled in this program. All students serve an internship in which they work under supervision with a police agency.

Provision is made to accommodate both the individuals who plan to attend full time and complete the course of study in two academic years and police officers who wish to attend part-time.

For more specific information, contact:
James E. Hendricks, Coordinator

Mortuary Science and Funeral Service

The only mortuary science and funeral service program in a public university in



Illinois, this associate degree course of study is fully accredited by the American Board of Funeral Service Education and by many individual state boards.

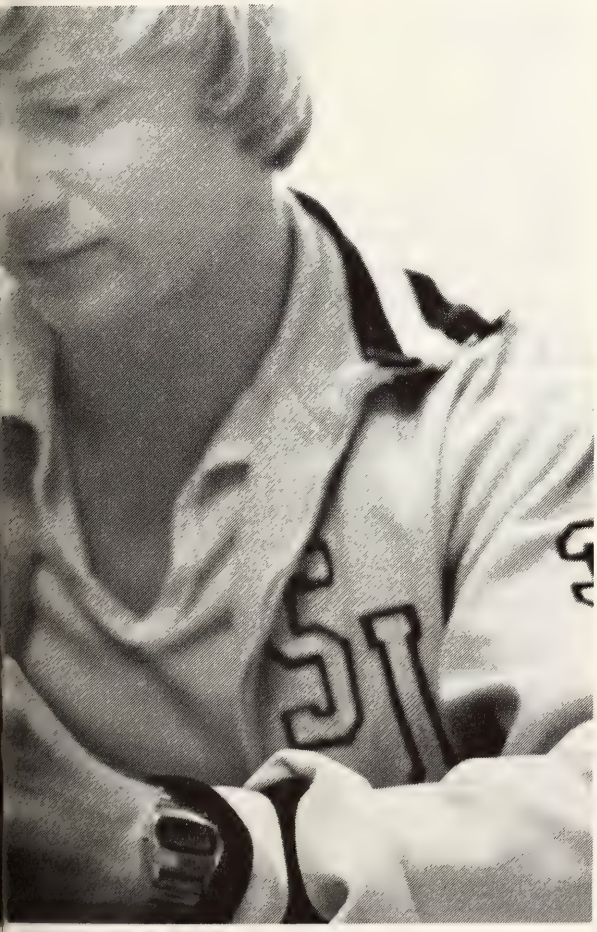
Those wishing to enroll must complete a mortuary science admissions packet as well as filing for admission to Southern Illinois University at Carbondale.

The curriculum is divided into two concentrations. One is funeral service education, or funeral directing, which involves counseling the family on a variety of matters including insurance, social security, and veterans' benefits, as well as all aspects of managing a funeral home. The other is mortuary arts and sciences, or embalming, which involves the disinfection, preservation and restoration of human remains for funeral ceremonies.

Preprofessional and professional courses have been combined to provide a carefully balanced course of study in four semesters of classroom and laboratory work and one summer internship.

Current requirements are:

First Semester
Orientation to Funeral Service
Restorative Art
English Composition



General Psychology
Biological Science

Second Semester
Funeral Service Psychology
Public Communication
Accounting
Business Law
English Option
Health Education Elective

Third Semester
Embalming Chemistry
Mortuary Management
Embalming Theory and Practice
Mortuary Anatomy

Fourth Semester
Mortuary Management
Embalming Theory and Practice
Pathology
Microbiology

Summer Session
Management and Embalming Internships
Seminar

Graduates of this program have satisfied requirements for the trainee license and are eligible to write the state board examinations in embalming and funeral directing.

Licensing and qualification requirements vary from state to state since laws governing the profession are enacted at a state level. Licensure in one state does not assume automatic qualification in another, but most state boards have some reciprocal agreements with other states. Prospective students should contact the licensing body of the state in which they decide to attempt licensure.

This program is the home of Alpha Chapter of Sigma Phi Sigma, mortuary science fraternity.

For more specific information, contact:
Donald Hertz, Coordinator

Photographic and Audio-Visual Technology

This program provides all students a first year of core courses, with provisions in second-year studies for specialization in technical photographic laboratory curriculum or technical audio-visual curriculum.

Technical photographic courses are designed to prepare students as photographic laboratory technicians or photo finishers in industrial and commercial photographic processing agencies. Emphasis is placed on quality black and white and color photographic processes and materials. Students learn still photographic techniques in lecture/laboratory sessions and tour industrial and commercial photographic processing agencies to obtain practical understanding of commercial systems.

Students should expect to invest approximately $400 in the production of a portfolio and the purchase of special photo chemicals and supplies. Second year students are required to provide their own fully adjustable cameras.

This program sponsors the annual Illinois High School Photo Contest, which draws thousands of entries from throughout the state.

Audio-visual courses are designed to prepare students to work with industrial and educational audio-visual delivery systems. Graphic production courses enable students to develop technical skills essential to the production of basic graphics for audio-visual systems. Students should expect to invest approximately $300 for test equipment, tools, and graphic supplies.

Current requirements for the technical photography option are:

First Semester
Photo Processing I
Photo Processing II
Audio-Visual Equipment Operation
Chemistry

Second Semester
Graphics I
Photo Processing III
Fundamentals of Math
Typing

Third Semester
Photo Processing IV
Photo Processing V
English Composition
Oral Reporting

Fourth Semester
Photo Lab Management
Technical Writing
Practicum

Second-year requirements for the technical audio-visual option include:

Third Semester
Maintenance and Repair of Audio-Visual Equipment
Graphics II
English Composition
Oral Reporting

Fourth Semester
Production of Multi-Media Materials
Practicum
Technical Writing
Individual Study

Graduates of the program are limited only by their own talent, motivation, and willingness to move to where jobs are available. Pay is commensurate with the technician's ability, resourcefulness, and drive.

For more specific information, contact:
Robert White, Coordinator

Physical Therapist Assistant

This program is designed to prepare graduates to work under the direction of a licensed physical therapist to treat disabilities resulting from birth defects, disease, or injury. Under the direction of a physical therapist, the assistant helps the patient to develop strength, mobility, and coordination, and provides relief from pain.

The program has been accredited by the American Physical Therapy Association. The physical therapist assistant program's ethical standards in education are planned in accordance and are consistent with the ethical guidelines recommended by the American Physical Therapy Association's Committee on Accreditation in Education. The program's ethical standards include the provision of an educational experience which will ensure that the graduates will become qualified physical therapist assistants, fairness in academic credit and tuition, accurateness in advertising, and responsible, nondiscriminatory recruitment practice.

In addition to University admission, prospective students must complete an admission packet for the program. Enrollment is limited by size of faculty and physical facilities.

Admission is limited to the fall semester.

Prospective students should make early application.

Students should plan to spend approximately $100 for uniforms and insurance, as well as make provision for spending 12 weeks away from campus while serving internships in two separate hospitals.

All credit earned in completion of a physical therapist assistant program may not be applicable to further studies in a physical therapy program at another institution.

Current requirements of the program include:

First Semester
Chemistry for Non-Science Majors
English Composition
Zoology
Physical Therapy Orientation
Therapeutic Modalities I
Massage

Second Semester
Principles of Physiology
Physiology Laboratory
Introduction to Psychology
Interpersonal Communications
Human Anatomy
Physical Rehabilitation Techniques
Physical Therapist Assistant Practicum I

Third Semester
HiFi Sound-Laser Beams
First Aid
Kinesiology of Normal and Pathological Conditions
Therapeutic Exercise I
Pathology
Therapeutic Modalities II

Fourth Semester
Physiological Bases-Human Movement
Training Room Techniques
Psychology
Physical Therapy Science
Therapeutic Exercise II
Physical Therapist Assistant Practicum II

Summer Session
Clinical Internship
Clinical Seminar

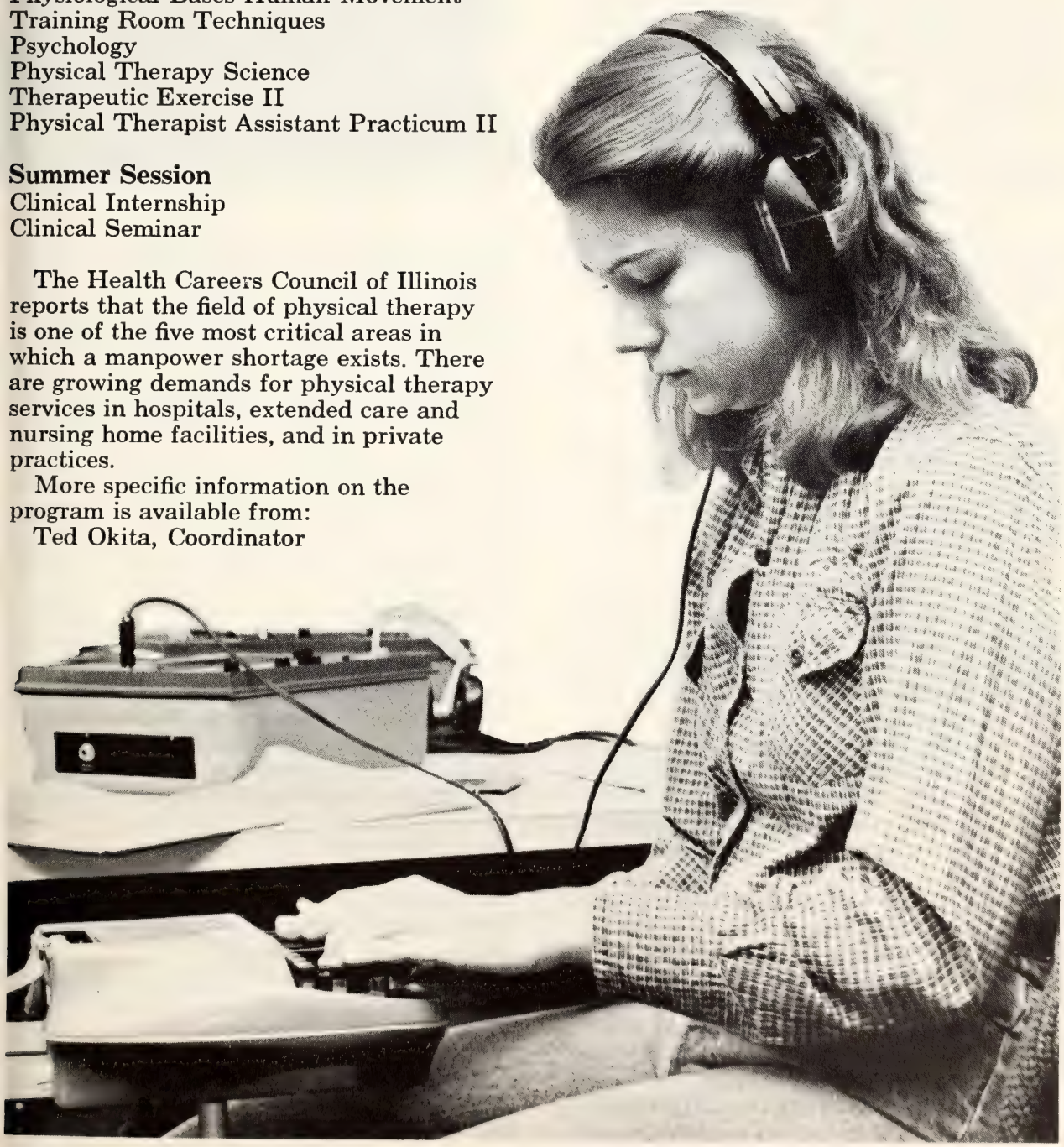
The Health Careers Council of Illinois reports that the field of physical therapy is one of the five most critical areas in which a manpower shortage exists. There are growing demands for physical therapy services in hospitals, extended care and nursing home facilities, and in private practices.

More specific information on the program is available from:
Ted Okita, Coordinator

Secretarial and Office Specialties

Current developments in office systems and related technology have resulted in many opportunities for information support personnel with special interests and extensive, specialized skills. Both men and women find rewarding careers in administrative support, information systems, and court reporting fields.

Students in this program are not forced into a mold. They gain shorthand and typing proficiency and other office skills through a core of basic courses, and then draw from a variety of allied health, technical, and business programs to specialize.



Students who have an excellent background in office skills are eligible for the Program of Advanced Curriculum Entry (PACE) which allows students to complete an associate degree in one summer and one year.

Associate degree programs are available in a variety of specialties. Individualized specialties may be devised for students with career goals which do not fit available programs.

Most instruction is individualized. In addition to classroom meeting times, most courses require the student to spend individual study time in the secretarial learning center.

The purchase of cassette tapes and supply packets is mandatory for students enrolled in learning center courses. A list of the requirements for all learning center courses will be sent upon request. Over a two-year period this would amount to $20 to $60 per student.

Basic requirements of the program, which are to be met during the first and second semesters or through advanced placement, proficiency testing, or transfer credit, include:

Keyboarding
Gregg Shorthand
Introductory Machine Transcription
Reprographics
Filing
Calculating Machines
Applied Accounting I
English Composition
Interpersonal Communication
or
Public Communication
Business Communication

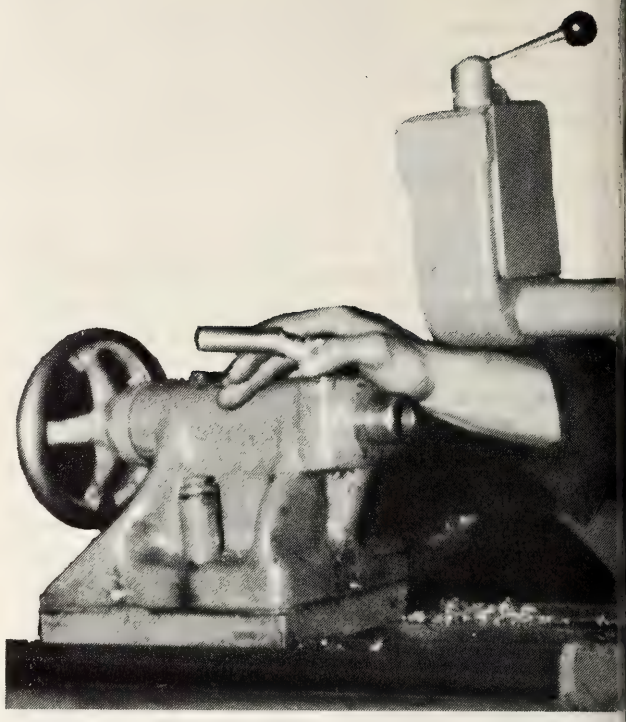
Specialty requirements are met during the third and fourth semesters or filled by advanced placement, proficiency testing, or transfer credit.

Currently available specialties include administrative assistant, insurance administrative assistant, and legal/government administrative assistant.

All specialties include a minimum of 225 hours of on-the-job experience as part of the academic program.

Court and Conference Reporter, Reporting Stenographer, Notereader, Specialized Reporter. These specialties require a summer session in addition to the four semesters of the associate degree program. The court and conference reporter specialty includes a minimum of 40 hours of courtroom experience.

Students entering court reporting must be able to type 30 words per minute. In addition, good language skills are recommended. Court and conference reporting may be pursued as a specialization within the associate degree program, and also is offered as a post-associate specialization for those who have completed an associate degree in a related field at a community college or other post-secondary institution.



Students enrolled in court reporting are required to purchase a shorthand machine at the end of their first year at a cost of approximately $300.

Requirements for the reporting specialties are:

First Semester
Machine Shorthand I and II
Keyboarding (Intermediate Typewriting)
Business Communications
Legal Term/Documents
Introduction to Court Reporting

Second Semester
Machine Shorthand III
Introduction to Legal Testimony
Keyboarding (Advanced Typewriting)
Anatomy and Physiology
Pre-Transcription Skills
Public Communication

Summer Session
Legal Testimony I
Literary/Medical I
Keyboarding (Pre-Specialty Typewriting)



Third Semester
Legal Testimony II
Literary/Medical II
English Composition
Applied Law I
Applied Accounting I

Fourth Semester
Legal Testimony III
Literary/Medical III
Court Practicum
Applied Law II
American Government

Those completing the post-associate specialty who attain a shorthand speed of 225 words per minute are qualified to take the Certified Shorthand Reporters Association test.

Specific information on the program is available from:

Michael Payne, Coordinator

Tool and Manufacturing Technology

Students in this program are trained on a variety of modern machines and testing equipment by faculty members who have broad experience in education and industry.

Extensive experience in a well-equipped machine shop provides students with the training necessary to build basic jigs and fixtures, to set up and operate production machines such as the turret lathe, to build various forms of shop tooling, and to build metal stamping dies and casting dies. Hands-on experience on advanced forms of machinery such as numerical controlled machines and electrical discharge machines is a vital part of the student's experience. Courses in welding and fabrication are offered as an option for those wishing this training.

Electronic data processing facilities are used to prepare tool and manufacturing technology students for work with computer assisted programming of numerical controlled machines. They learn to design and test industrial types of electric, hydraulic, and pneumatic power circuits; to read blueprints and make shop sketches; and to alter existing machines for structural changes.

Students spend about $75 for tools, instruments and supplies.

Current requirements for the Associate in Applied Science degree are:

First Semester
Basic Tool and Manufacturing Lab
Introduction to Machine Tools
Technical Drawing
Hydraulics and Pneumatic Control
Technical Math

Second Semester
Milling Machine and Grinding Lab
Machinability of Metals
Technical Drawing
American Government and Politics
or
Introduction to Psychology
English Composition

Third Semester
Numerical Control, Electrical Discharge Machining, Tool and Die
Numerical Control, Inspection Practice, and Electrical Discharge Machining
Metallurgy
Numerical Control Programming
Applied Physics

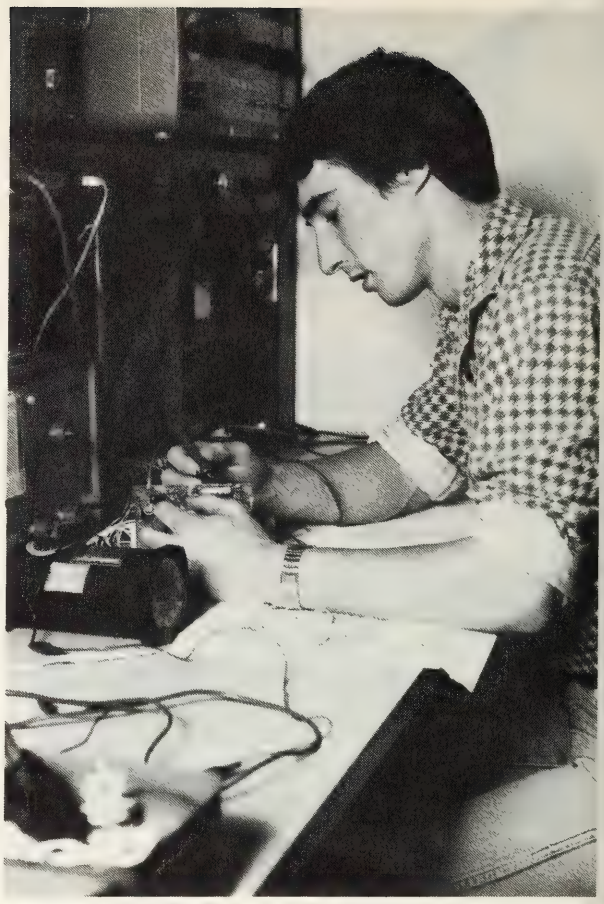
Fourth Semester
Advanced Numerical Control, Tool and Die, Production Machining
Tool and Die, Production Machining, Process Planning
Metallurgy
Oral Communication of Ideas
or
Technical Report Writing
Manufacturing Processes

A student chapter of the Society of Manufacturing Engineers gives its members an early start in the development of their careers.

A successful graduate of the program may work as a tool and manufacturing technician, who functions in the industrial area between the mechanical and manufacturing engineering and the skilled tool maker. The technician has the technical background required to work with engineers in research, development, and testing, plus the skills in metal cutting and fabrication that give him the abilities of a tool maker.

The technician may run tests on experimental equipment and material, alter and fabricate pilot models of equipment, build jigs, fixtures, and dies, or operate and supervise operation of machine tools.

For more specific information, contact:
H.R. Soderstrom, Coordinator



Flight Training

Any student enrolled in Southern Illinois University at Carbondale may take flight courses from private pilot through airline transport pilot for up to 24 hours of credit. Many are interested in learning to fly for personal reasons and complete only the private pilot courses.

Students who wish to apply this training to degrees in aviation may do so through the bachelor of science in technical careers program.

As explained elsewhere in this booklet, a special bachelor's degree curriculum can be designed to prepare the graduate for virtually any aviation-related career, such as aviation management, fixed base operations, or commuter airline operations. The possibilities are limited only by career opportunities and student determination and imagination.

Some students want to earn credit in flight courses to complement or supplement a major course of study in the university. These include students enrolled in the highly regarded associate degree programs in aviation technology and avionics technology in the School of Technical Careers. Students need not be enrolled in an aviation-related program, or even in the School of Technical Careers, however. Pilot training courses may just as well be taken by students in agriculture, physical education, or liberal arts, for example.

Pilot training courses are conducted at the Southern Illinois Airport, where a full range of modern, fully flight instrument equipped and superbly maintained aircraft is available for student use.

All full-time flight faculty hold the ATP as well as the full range of flight instructor credentials.

Ground school courses are held in small classroom groups as well as one-to-one in more casual settings. All airborne instruction is schedule at the student's convenience, on weekends as well as during the week.

Fees for flight training are assessed in addition to regular tuition and fees paid by the student.

At the time of publication, costs for private pilot training totaled approximately $1700. Instrument commercial pilot training costs were an additional $5,100. Various other ratings through airline transport pilot are available. Flight training fees are subject to change; the current schedule is available from the supervisor.

Individuals who wish to incorporate flight training into a degree program in the School of Technical Careers should contact an adviser in either the baccalaureate or associate degree division.

For more specific information on flight training, contact:
Elliott Ketring, Chief Pilot and Supervisor

Bachelor Degree Programs

Bachelor of Science in Technical Careers

The Bachelor of Science degree in technical careers offered by Southern Illinois University at Carbondale is unique.

It is designed for individuals, college age or older, who are following a career path for which there is no existing program leading to the bachelor's degree. More specifically, it is designed for students who have completed an occupational associate degree (or its equivalent) and who would like to add to or broaden their career preparation. It allows the career-oriented student to design an individualized course of study that exactly fits the individual's educational needs.

This degree is not for everyone, however. It is not accredited for professional fields such as architecture, for example. And those who wish to be certified elementary or secondary school teachers should look at the programs offered by the College of Education. This is not the proper program if there is an existing program in any unit of SIUC or another college which accommodates the student's career goals.

Unlike conventional programs, the STC baccalaureate studies program has no established curriculum or required courses. With the help of an STC baccalaureate faculty member, each student designs a program of study to give the preparation needed for advancing in a particular field.

In preparing a program of study, a student may choose courses from any of the undergraduate colleges and schools at SIUC. For example, a student with an associate degree in automotive technology who wishes to work in automotive service management may include courses in small business management, business law, management and supervision, personnel psychology, and applied accounting. A student with an associate degree in commercial graphics who wishes to be a writer and illustrator of children's books may design a curriculum which includes courses in art, children's literature, creative writing, and child psychology.

In addition to admission to SIUC, the student must meet these requirements in order to be admitted to the individualized baccalaureate studies program:

- Have completed at least two terms of post-secondary education
- Have an approved learning contract on file with the program
- Special approval if more than 90 semester hours of post-secondary education have been accomplished

Requirements for the Bachelor of Science degree in technical careers include:

- Complete two years of study (approximately 60 hours) beyond the occupational associate degree, including all SIUC baccalaureate degree requirements
- Complete the requirements listed in the learning contract
- Obtain credit for approved work experience or internship
- Be enrolled in the baccalaureate studies program for at least two terms

The learning contract is the heart of the program. It is an agreement which sets forth the specific courses which will be taken by a student to complete the Bachelor of Science degree in technical careers. It covers these points:

- A title for the individual program or course of study. This is discussed with the adviser before acceptance.
- A career goal statement, which is a description in the student's own words of the career being prepared for, why it was chosen, and how the student intends to prepare for it. The complete statement has three major paragraphs, covering these points:
- *What career.* In what type of business or industry the student intends to work, specific kind of position sought, and the knowledge and skills needed.
- *Why the career was selected.* Previous work experience, and relevant technical training the student has; an outline of post-secondary academic

history to this point, including schools attended, major, minor, degrees received; and an explanation if there is a change of major.

How the student plans to prepare. Why the School of Technical Careers was chosen over other options; the areas of intended study to complete the B.S. degree, including a major and a proposed secondary area of concentration; and the relationship of the courses chosen to the career goal.

A program of study listing the courses already taken and future courses planned in order to complete all the requirements for the Bachelor of Science degree in technical careers. It consists of a primary concentration (usually an occupational associate degree), an individualized secondary concentration (composed of courses taken beyond the associate degree and related to the career goal), and credit for approved work experience or internship.

In addition to being able to design individualized courses of study, it also is possible for students to receive credit for previous civilian and military work experience as well as for military schools. This experience, of course, must be related to the career goal.

Admission to the STC baccalaureate studies program does not imply admission to any STC associate degree program. Students who wish to take courses in an associate degree program, must also apply for admission to that program.

Because the STC baccalaureate program takes a limited number of students, early application is advisable. Those who have specific questions about the program which this booklet does not answer should write:

Director
Division of Baccalaureate Studies

Off-Campus Programs

The School of Technical Careers conducts programs on nearly two dozen military installations throughout the United States which give service personnel the opportunity to apply service training and other educational experience to an academic program leading to the Bachelor of Science degree in technical careers.

Currently, the school offers aviation management, electronic systems, health care services, and fire science services.

These curricula are designed to provide classwork in concentrated week-end sessions, with scheduling to accommodate military duty assignments. At each installation where the program is available, a representative of the school is assigned to provide advisement and counseling as well as to instruct courses in his particular field. Other courses are taught by faculty members who travel from the campus to the installation.

Every effort is made to accommodate the special needs of military personnel in these programs. Most can be completed in one normal tour of duty.

Course work provided by the school consists of upper division studies which build upon military technical training and general education acquired by the student through completion of courses at any accredited institution of higher education or by credit received through CLEP, USAFI, DANTES, or by proficiency examination.

Specific information is available through the base education office or from the representative of the School of Technical Careers at installations where the programs are offered.

Courses of study now available on military installations include:

Aviation Management. This curriculum coincides with many Army, Navy, Marine Corps, and Air Force career specialties such as ground equipment, electrical systems, general flight line maintenance, pneudraulic systems, powerplant, propeller, environmental and ejection systems, communications, navigation, avionics instruments, radar, and others included in the aviation career specialty listings.

Courses provided by the school include:
Airport Planning
Aviation Industry Regulations
Airport Management
Airline Management
Technical Writing
Systems Design and Development
Labor/Management Problems
Fiscal Aspects of Aviation Management
Pre-Professional Seminar
Legal Aspects of Aviation Management
Purchasing
Occupational Safety and Health Standards
Internship
Technical Careers Subjects

Electronic Systems. This curriculum coincides with military career specialties such as ground equipment electronic systems, communications, navigation, avionics instruments, radar, and others

listed in the aviation career specialty listings.

Courses provided by the school include:
- Telemetry and Industrial Circuits
- Digital Circuits
- Advanced Solid State Devices
- Introduction to Electronic Biomedical Instrumentation
- Technical Writing
- Labor/Management Problems
- Quality Control
- Pre-Professional Seminar
- Production and Inventory Control
- Occupational Safety and Health Standards
- Systems Design and Development

Health Care Services. This curriculum coincides with military career specialties of medical corps, medical service corps, hospital corpsman, dental technician, and similar health care specialties.

Courses provided by the school include:
- Legal Aspects of Health Care
- Health Economics
- Consumer Health
- Community Health
- Internship
- Technical Careers Subjects
- Systems Design and Development
- Current Health Care Problems
- Health Care Management
- Fiscal Aspects of Health Facilities
- Pre-Professional Seminar
- Community Health Administration
- Staff Development
- Equipment and Materials Management in Health Facilities
- Technical Writing
- Labor/Management Problems

Military personnel can take advantage of a variety of financial assistance programs while enrolled in these studies.

Fire Science Services. This course of study leads to the Bachelor of Science degree in technical careers and is designed especially for individuals who hold the Associate in Applied Science degree or its equivalent in a fire science related field from a community college or technical institute.

The curriculum consists of upper division fire science service courses offered at designated off-campus sites for civilians, and for military personnel at selected bases. It is not available to students on the Carbondale campus.

Class schedules are arranged to accommodate the unique work schedules of fire personnel. A total of three formal classroom courses and an independent study project are required each semester for four semesters.

Required Fire Science Services coursework includes:
- Applied Specialty Law-Fire Services
- Fire Insurance Rating and Grading
- Purchasing and Inventory Management
- Occupational Safety and Health Act
- Industrial Safety
- Fiscal Aspects of Fire Science
- Fire Prevention and Inspection
- Systems Design and Development
- Labor-Management Problems
- Collective Bargaining and Dispute Settlement
- Public Financial Administration
- Introduction to Public Administration
- Technical Careers Subjects

While this curriculum is designed primarily for those who have the associate degree, provision is made for those who have not yet completed work on the degree.

Specific information on admission procedures, evaluation of previous training and educational experience, course requirements and other aspects of the program are available from the School of Technical Careers representative on the location where the program is offered, or from:

John R. Sutton, Director of Off-Campus Programs

General Information

Admission

Students seeking admission to associate degree programs in the School of Technical Careers can qualify for admission any semester if they rank in the upper two-thirds of their graduating class or achieve a minimum ACT composite score of 15 or higher (SAT 690). Students who do not qualify for admission under these requirements may be granted conditional admission for the spring semester, provided the program to which they are applying allows spring admission.

Students are admitted only in the fall semester to programs in commercial graphics—design, dental hygiene, dental laboratory technology, mortuary science and funeral service, and physical therapist assistant.

Students may be admitted in any term to architectural technology, construction technology, electronic data processing, and electronics technology, but may begin studies in the major only in the fall semester. Those who choose to enter these programs other than in the fall may need more than four semesters to complete the associate degree.

All other programs in the School of Technical Careers admit students in any term.

Students seeking admission to dental hygiene, dental laboratory technology, mortuary science and funeral service, nursing, or physical therapist assistant programs must meet requirements of the specific program as well as university entrance requirements. All students applying for admission to one of these programs will be sent additional information on admissions by the program supervisor.

Transfer students applying for admission to the STC Division of Baccalaureate Studies who have an overall *C* average as determined by SIU grading procedures in all college work and at least 26 semester (39 quarter) hours are eligible for admission any term. Transfer students who have at least a *C* overall average but fewer than 26 semester (39 quarter) hours must also meet freshman requirements.

Veterans are admitted regardless of their previous collegiate academic record provided no additional education has been attempted since separation from active duty, or such credit attempted must amount to *C* average or higher. Previous educational records will determine the scholastic status of entering veterans. Veterans considering enrollment are encouraged to contact the Office of Veteran Affairs.

All inquiries regarding admission procedures and requests for admission materials should be directed to:

Office of Admissions and Records, Southern Illinois University at Carbondale, Carbondale, IL 62901.

Housing

All freshmen and sophomores under the age of 21 who do not live with parents or guardians must live in University-owned and operated housing or University-approved off-campus housing. Juniors, seniors, graduates, married students, veterans, or those students over 21 years of age may live where they choose.

All University-owned housing is located on the Carbondale campus; free bus service is provided for students who attend classes on the Carterville campus or at the Southern Illinois Airport.

Costs

Tuition and fees for an Illinois resident enrolled as a full-time student currently total $471.05 per semester or $942.10 per academic year. Out-of-state residents pay $1,093.05 per semester or $2,186.10 per academic year for full-time enrollment.

Room and board in university residence halls is $896 per semester or $1,792 per academic year. Housing available for married students ranges from $157 to $214 per month, depending upon type.

Tuition and fees and other costs are those which are in effect as determined by the Board of Trustees at the time of the student's enrollment. Career programs of the School of Technical Careers require also the purchase of tools, uniforms, insurance, supplies, or books as determined by the nature of the individual program.

Information Request

Please Send

☐ Application for Admission

☐ I plan to enroll in:

_____

_____

☐ Information on campus visit

☐ Other

_____

_____

Clip and Mail to:
Office of Admissions and Records
Southern Illinois University
at Carbondale
Carbondale, IL 62901

(Please Print)

_____

☐ MR. ☐ MISS ☐ MRS. NAME

_____

ADDRESS

_____

CITY

_____

STATE ZIP

If coupon has been used

For further information about programs of the School of Technical Careers, write to the coordinator of the program at:

School of Technical Careers
Douglas Drive
Southern Illinois University
at Carbondale
Carbondale, IL 62901

Telephone 618–536–6682

For further information about Southern Illinois University at Carbondale or for admission information or material, write:

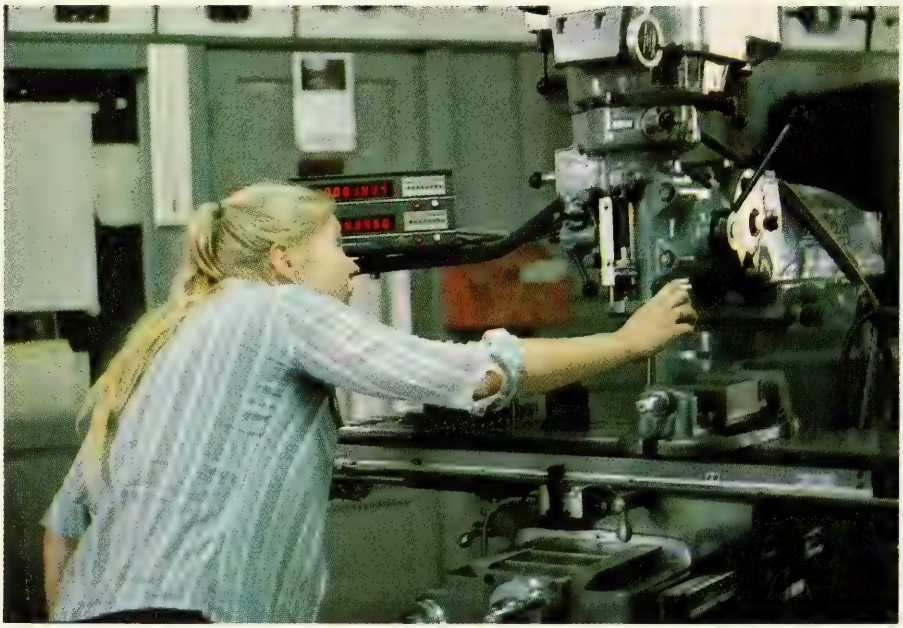
Office of Admissions and Records
STC Information
Southern Illinois University
at Carbondale
Carbondale, IL 62901

Telephone toll free (Illinois residents only) 800–642–3531
Others may call 618–453–4381

Black and white photography by Tom Burrell, Rob Dalrymple, Mark Glasgold, John Laws, Marsha Mueller, Jackie Nipps, Robin Whitburn, and Pat Yohe. Color photography by Marsha Mueller and David Saunders.

SIU

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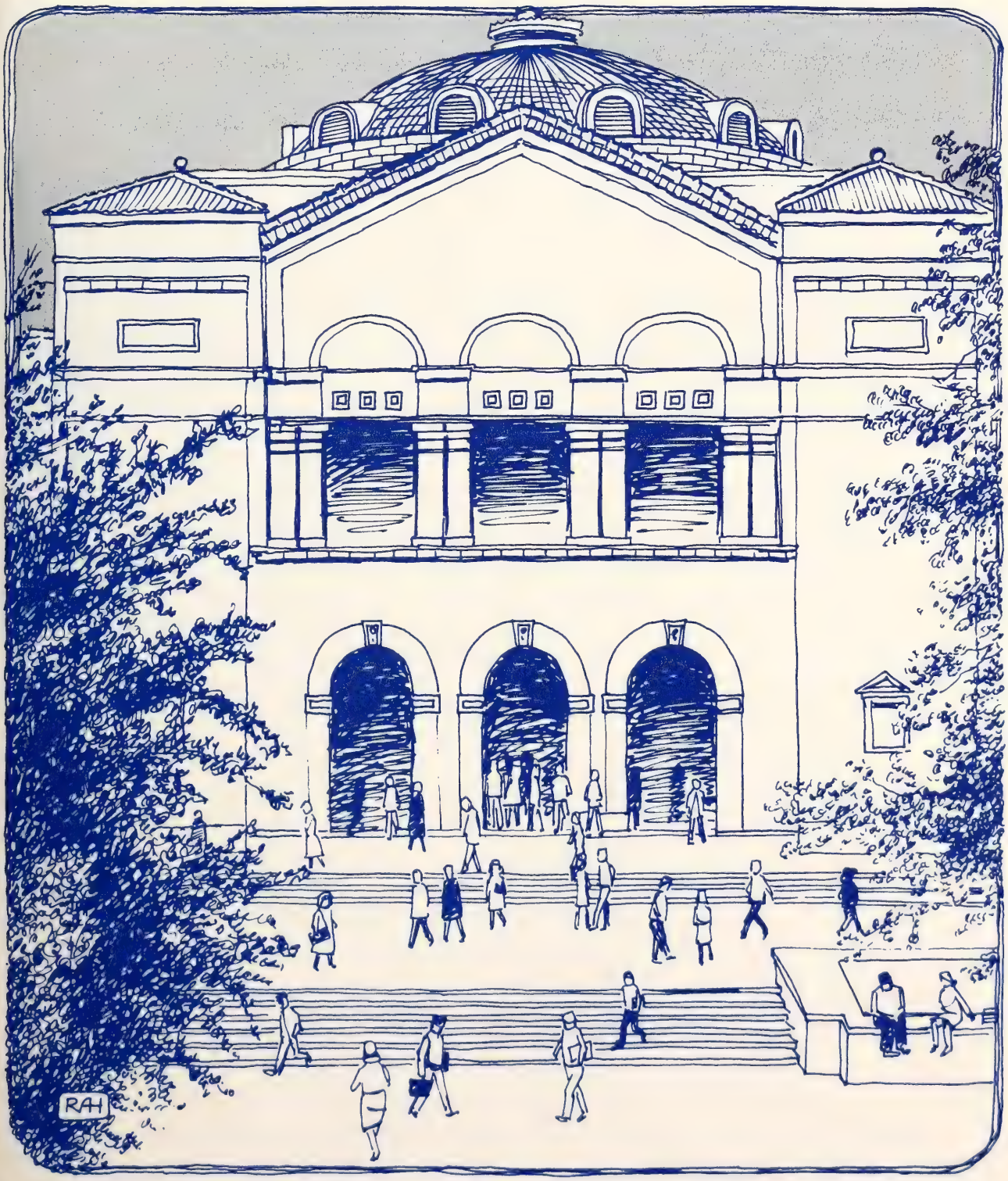




Southern Illinois University at Carbondale

Bulletin

1981-1982 Undergraduate Catalog



Southern Illinois University at Carbondale is an Equal Opportunity/Affirmative Action institution in accordance with Civil Rights legislation and does not discriminate on the basis of race, religion, national origin, sex, age, handicap, or other factors prohibited by law in any of its educational programs, activities, admissions, or employment practices. Concerns regarding this policy should be referred to the Affirmative Action Office, Southern Illinois University at Carbondale, Anthony Hall, Room 104, telephone 536-6618.

This publication provides information about Southern Illinois University at Carbondale. Primary attention is given to its academic program, rules and regulations, and procedures. Students starting their collegiate training during the period of time covered by this catalog (summer 1981 through spring 1982) are subject to the curricular requirements as specified herein. Should these requirements subsequently be changed by the University, students are assured that necessary adjustments will be made so that no additional time is required of them, because of these changes in meeting their educational objectives. Where programs include requirements established by agencies external to the University, every effort will be made to follow this same principle so far as possible. Should subsequent curricular requirements changes work to the students' advantage, they may elect to meet the new requirements rather than those contained herein. This curricular requirement arrangement will extend for a seven calendar year period from date of entry for baccalaureate programs and three years for associate programs. If the students have not met their undergraduate educational objectives by that time, they will then become subject to current curricular requirements. Should the University find it necessary to discontinue an academic program, the effective date, unless otherwise dictated, will be such that the last regularly admitted class will be able to complete the program in regular time sequence. This means four years for baccalaureate and two years for associate programs. The University reserves the right to change information contained herein on matters other than curricular requirements without regard as to their date of entry into college.

COVER: Shryock Auditorium, Southern Illinois University at Carbondale



Southern Illinois University at Carbondale Bulletin

1981 - 1982 Undergraduate Catalog

Southern Illinois University at Carbondale Bulletin (USPS 506-080)

Volume 22, Number 5, October 1980

Second-class postage paid at Carbondale, Illinois 62901.
Published by Southern Illinois University at Carbondale, Carbondale, Illinois 62901, five times per year, in June, July, August, September, and October.

This Catalog

The Undergraduate Catalog covers in detail questions concerning the undergraduate program of Southern Illinois University at Carbondale for the period from summer, 1981 through spring, 1982. It supersedes Volume 21, Number 5

The following publications, may be obtained free from University Graphics, Southern Illinois University at Carbondale, Carbondale, Illinois 62901.

Graduate Catalog
Undergraduate Catalog
School of Law Catalog
School of Technical Careers Information
Counselor's Advisement Catalog
General Information Catalog
Schedule of Classes. Please specify session (fall, spring, or summer).

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Board of Trustees and Officers of Administration

Board of Trustees of Southern Illinois University

	Term Expires
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Carol Kimmel, *Secretary,* Rock Island	1983
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Barry L. Bateman, *Executive Director for Computing Affairs*

University Calendar

Summer Session, 1981

Eight-Week Session Begins	Monday, June 15, 7:30 A.M.
Independence Day Holiday	Friday, July 3
Final Examinations	Thursday and Friday, August 6-7
Commencement	Saturday, August 8

Fall Semester, 1981

Semester Classes Begin	Monday, August 24, 8:00 A.M.
Labor Day Holiday	Monday, September 7
Thanksgiving Vacation	Saturday, November 21, 12:00 NOON — Monday, November 30, 8:00 A.M.
Final Examinations	Monday, December 14 — Friday, December 18

Spring Semester, 1982

Semester Classes Begin	Monday, January 18, 8:00 A.M.
Lincoln's Birthday Holiday	Friday, February 12
Spring Vacation	Saturday, March 13, 12:00 NOON — Monday, March 22, 8:00 A.M.
Final Examinations	Monday, May 10 — Friday, May 14
Commencement	Saturday, May 15

Excused Absences for Religious Holidays

Students absent from classes because of required observances of major religious holidays will be excused. It is the student's responsibility to notify the instructor of each class that will be missed in advance of the absence. Students must also take the responsibility for making up work missed.

1 General Information

The University

The Southern Illinois University System

The Southern Illinois University System is a senior, public university system comprised of two diverse institutions, Southern Illinois University at Carbondale and Southern Illinois University at Edwardsville, serving approximately 33,000 students. One of the nation's largest, the Southern Illinois University System had its beginnings in Carbondale and was chartered in 1869 as Southern Illinois Normal University. In 1949, Southern Illinois University began offering off-campus academic courses in the metropolitan East St. Louis area, and this initiative led to the eventual development of a separate, distinctive institution in Edwardsville.

The mission and scope of the Southern Illinois University System is highly complex and emphasizes a commitment to quality education. As the Southern Illinois University System has grown and flourished, its constituent Universities have developed programs of instruction, research, and public service which have attracted and served students, faculty, and staff not only from the region but from throughout the State of Illinois and the nation, and from overseas as well.

The Universities within the Southern Illinois University System offer a broad range of academic programs at the associate, baccalaureate, master's, doctoral, and professional degree levels. In addition to the many undergraduate degree programs offered, the constituent Universities support over sixty academic programs which lead to the master's degree, and twenty-two programs which lead to the doctorate. The professional schools are designed to provide quality health and legal personnel and services to the people of the State of Illinois. Southern Illinois University at Edwardsville operates a School of Nursing in Edwardsville and a School of Dental Medicine in Alton, and Southern Illinois University at Carbondale has a School of Law in Carbondale and a School of Medicine headquartered in Springfield. Of the 33,000 students currently enrolled, more than 6,000 are enrolled in graduate and professional programs.

The instruction, research, and service missions of the two constituent Universities reflect the needs of the geographic areas in which they are located. The System is also committed to serving statewide, national, and international needs. This commitment is reflected in educational activities located off the main campuses in communities throughout the State and the nation. Its presence is also felt in countries other than the United States through research and training exchanges and through worldwide student exchange programs.

The Southern Illinois University System is governed by a nine-member Board of Trustees which sets policy that enables the institutions to carry out established missions and goals. The chancellor of the Southern Illinois University System is the chief executive officer of the system and is the primary link between the

Universities and the Board of Trustees. The University presidents report directly to the chancellor and are responsible for the internal operations of the respective institutions.

Southern Illinois University at Carbondale

After being chartered in 1869, Southern Illinois Normal University began instruction in 1874. The institution first operated as a two-year normal school but in 1907 became a four-year, degree granting institution, although continuing its two-year course into the 1930's. It was in 1943 that the institution was transformed from a teacher-training institution into a university, thus giving official recognition to the area's demand for diversified training and service. Graduate work was instituted in 1943, with the first Ph.D. degree granted in 1955.

Location

The city of Carbondale is approximately 100 miles southeast of Saint Louis, Missouri, in Jackson County, the western border of which is the Mississippi River. Immediately south of Carbondale begins some of the most rugged and picturesque terrain in Illinois. Sixty mile to the south is the historic confluence of the Ohio and Mississippi rivers, the two forming the border of the southern tip of Little Egypt, the fourteen southernmost counties in Illinois. The region immediately surrounding Carbondale is noted for its large peach and apple orchards. Within ten miles of the campus are located two state parks and four lakes and much of the area is a part of the Shawnee National Forest.

Campus

Immediately south of the city of Carbondale, the University campus, comprising more than 3,290 acres, has developed a 981 acre portion with woods and a lake as a site for its academic buildings and residence halls. The buildings are located in wooded tracts along two circular shaped campus drives, named for Lincoln and Douglas. Two beautiful features that are located near the center of the campus complex are a wooded tract, preserved in the tradition of the native forests of Southern Illinois, and several buildings surrounding the site which formed the original campus a century ago. Approximately seventy large permanent buildings and several hundred small temporary buildings are located on the campus. Recently completed buildings include the $11,000,000 Student Recreation Building and the $8,500,000 School of Technical Careers Building. The new $9,400,000 School of Law Building should be completed in 1981.

In addition to the numerous recreational facilities in the area, the University's own Lake-on-the-Campus offers facilities for swimming, boating, fishing, and picnicking within the confines of the campus. Some of the facilities for the School of Technical Careers remain at a site ten miles east of Carbondale although current plans call for their replacement by permanent instructional facilities on the Carbondale Campus. The part of its program related to aircraft technologies is located adjacent to the Southern Illinois Airport. The Touch of Nature Environmental Center, a 6,500-acre complex on the shores of picturesque Little Grassy Lake, provides opportunity for outdoor learning experiences.

Accreditations and Affiliations

North Central Association of Colleges and Secondary Schools

National Council for Accreditation of Teacher Education

Accrediting Council of the American Assembly of Collegiate Schools of Business (undergraduate and master's level programs)

Accreditation Board for Engineering and Technology, Inc.

American Association for Accreditation of Laboratory Animal Care

American Association of Museums (University Museum and Art Galleries)
American Bar Association (provisional accreditation)
Commission of Schools of American Board of Funeral Service Education (Mortuary Science program)
American Chemical Society*
American Council on Education for Journalism
Commission of Accreditation of Dental and Dental Auxiliary Educational Programs of the American Dental Association (Dental Hygiene and Dental Laboratory Technology programs)
Commission on Accreditation of Rehabilitation Facilities (Vocational development program)
American Dietetic Association (programs meet standards for traditional baccalaureate programs in field of nutrition or dietetics)
American Institute of Architects (Architectural Technology program)*
American Medical Association and American Association of Medical Colleges
American Physical Therapy Association (Physical Therapist Assistant program)
American Psychological Association (Counseling psychology and clinical training program)
American Speech-Language-Hearing Association by the Council on Professional Standards in Speech-Language Pathology and Audiology.
Council on Rehabilitation Education (Rehabilitation Counseling program)
Council on Social Work Education
National Association of Schools of Art
Federal Aviation Administration (Aviation Technology program)
Foundation for Interior Design Education Research
Illinois Office of Education
  Superintendent of Education
    State Teacher Certification Board
  State Board of Education
    Vocational Home Economics programs
    State Plan for Administration of Vocational and Technical Education in Illinois
Illinois Department of Registration and Education (Associate Degree Nursing program)*
National Association of Industrial Technology (B.S. program in Industrial Technology)
National Association of Schools of Music
Society of American Foresters
National Shorthand Reporters Association (court reporter training program)*
Association of University Programs in Health Administration (Health Care Services option of B.S. degree in Technical Careers)

*Program approved and/or annual report submitted.



Faculty

The University faculty is dedicated to excellence in teaching and to the advancement of knowledge in a wide variety of disciplines and professions. Many faculty members are well known both nationally and internationally for their many varied research contributions. The Undergraduate Catalog lists the numerous programs offered by the faculty and, in addition, in Chapter 5 of this catalog the faculty members are listed by departments in which they are appointed.

Curricula

The undergraduate majors and minors offered by Southern Illinois University at Carbondale are listed below in alphabetical order. Also indicated is whether a major, a minor, or both are offered. The academic unit which offers the major is listed as is the degree the student would expect to receive upon graduation. If a major may be completed in more than one academic unit, the other units are listed on additional lines. For example, the biological sciences major is offered through the College of Science. Students planning to teach biological sciences may also complete the major in the College of Education. The requirements for each of the programs listed below are explained in Chapter 4 of this bulletin. The degree abbreviations used are: A.A., Associate in Art; A.A.S., Associate in Applied Science; B.A., Bachelor of Arts; B.Mus., Bachelor of Music; B.Mus.Ed., Bachelor of Music Education; and B.S., Bachelor of Science.

In addition to the majors and minors listed, preprofessional programs may be completed in dentistry, law, medical technology, medicine, nursing, occupational therapy, pharmacy, physical therapy, public health, theology, and veterinary science.

SUBJECT	MAJOR	MINOR	ACADEMIC UNIT	DEGREE
Accounting	X		College of Business and Administration	B.S.
Administration of Justice	X	X	College of Human Resources	B.S.
Administrative Sciences	X		College of Business and Administration	B.S.
African Studies		X		
Agribusiness Economics	X	X	School of Agriculture	B.S.
Agricultural Education	X		School of Agriculture	B.S.
			College of Education	B.S.
Agricultural Education and Mechanization	X	X	School of Agriculture	B.S.
Agriculture, General	X	X	School of Agriculture	B.S.
Allied Health Careers Specialities	X		School of Technical Careers	A.A.S.
Animal Industries	X	X	School of Agriculture	B.S.
Anthropology	X	X	College of Liberal Arts	B.A.
Aquatics[3]		X		
Architectural Technology	X		School of Technical Careers	A.A.S.
Art	X	X	College of Communications and Fine Arts	B.A.
			College of Education	B.S.
Asian Studies		X		
Athletic Training[3]		X		
Automotive Technology	X		School of Technical Careers	A.A.S.

SUBJECT	MAJOR	MINOR	ACADEMIC UNIT	DEGREE
Aviation Technology	X		School of Technical Careers	A.A.S.
Avionics Technology	X		School of Technical Careers	A.A.S.
Biological Sciences	X	X	College of Science	B.A.
			College of Education	B.S.
Black American Studies		X		
Botany	X	X	College of Science	B.A.
			College of Education	B.S.
Business and Administration	X		College of Business and Administration	B.S.
Business Economics	X		College of Business and Administration	B.S.
Business Education[6]	X	X	College of Education	B.S.
Chemistry	X	X	College of Science	B.A., B.S.
			College of Education	B.S.
Child and Family	X	X	College of Human Resources	B.S.
Chinese[1]		X		
Cinema and Photography	X		College of Communications and Fine Arts	B.A.
Classical Civilization[1]		X		
Classics[1]	X		College of Liberal Arts	B.A.
			College of Education	B.S.
Clothing and Textiles	X	X	College of Human Resources	B.S.
Coaching[3]		X		
Commercial Graphics — Design	X		School of Technical Careers	A.A.
Commercial Graphics — Production	X		School of Technical Careers	A.A.
Community Development		X		
Comparative Literature		X		
Computer Science	X	X	College of Liberal Arts	B.A.
Construction Technology — Building	X		School of Technical Careers	A.A.S.
Construction Technology — Civil	X		School of Technical Careers	A.A.S.
Consumer Studies[2]		X		
Correctional Services	X		School of Technical Careers	A.A.
Dance[3]		X		
Dental Hygiene	X		School of Technical Careers	A.A
Dental Laboratory Technology	X		School of Technical Careers	A.A.
Design	X		College of Human Resources	B.A.
Early Childhood Education[4]	X		College of Education	B.S.
Earth Science		X		
East Asian Civilizations[1]		X		
Economics	X	X	College of Liberal Arts	B.A.
			College of Education	B.S.
Educational Media[4]		X		

SUBJECT	MAJOR	MINOR	ACADEMIC UNIT	DEGREE
Electronic Data Processing	X		School of Technical Careers	A.A.S.
Electronics Technology	X		School of Technical Careers	A.A.S
Elementary Education[4]	X		College of Education	B.S.
Engineering	X		College of Engineering and Technology	B.S.
Engineering Biophysics	X		College of Science	B.S.
Engineering Technology	X		College of Engineering and Technology	B.S.
English	X	X	College of Liberal Arts	B.A.
			College of Education	B.S.
Family Economics and Management	X		College of Human Resources	B.S.
Finance	X		College of Business and Administration	B.S.
Food and Nutrition	X		College of Human Resources	B.S.
Forestry	X		School of Agriculture	B.S.
French[1]	X	X	College of Liberal Arts	B.A.
			College of Education	B.S.
Geography	X	X	College of Liberal Arts	B.A., B.S.
			College of Education	B.S.
Geology	X	X	College of Science	B.A., B.S.
German[1]	X	X	College of Liberal Arts	B.A.
			College of Education	B.S.
Greek[1]		X		
Health Education	X		College of Education	B.S.
History	X	X	College of Liberal Arts	B.A.
			College of Education	B.S.
Home Economics Education[6]	X		College of Education	B.S.
Industrial Technology	X		College of Engineering and Technology	B.S.
Interior Design	X		College of Human Resources	B.S.
Japanese[1]		X		
Journalism	X	X	College of Communications and Fine Arts	B.S.
Language Arts and Social Studies	X		College of Education	B.S.
Latin[1]		X		
Latin American Studies	X		College of Liberal Arts	B.A.
Law Enforcement	X		School of Technical Careers	A.A.
Linguistics	X	X	College of Liberal Arts	B.A.
Marketing	X		College of Business and Administration	B.S.
Mathematics	X	X	College of Liberal Arts	B.A.
			College of Education	B.S.
			College of Science	B.S.

SUBJECT	MAJOR	MINOR	ACADEMIC UNIT	DEGREE
Microbiology	X	X	College of Science	B.A.
Mortuary Science and Funeral Services	X		School of Technical Careers	A.A.
Museum Studies		X		
Music	X	X	College of Communications and Fine Arts	B.Mus., B.A.
			College of Education	B.Mus.Ed.
Nursing	X		School of Technical Careers	A.A.
Occupation Education[6]	X		College of Education	B.S.
Philosophy	X	X	College of Liberal Arts	B.A.
Photographic and Audio-Visual Technology	X		School of Technical Careers	A.A.
Physical Education	X	X	College of Education	B.S.
Physical Therapist Assistant	X		School of Technical Careers	A.A.
Physics	X	X	College of Science	B.S.
			College of Education	B.S.
Physiology	X	X	College of Science	B.A.
Plant and Soil Science	X	X	School of Agriculture	B.S.
Political Science	X	X	College of Liberal Arts	B.A.
			College of Education	B.S.
Psychology	X	X	College of Liberal Arts	B.A.
Radio-Television	X		College of Communications and Fine Arts	B.S.
Recreation	X	X	College of Education	B.S.
Religious Studies	X	X	College of Liberal Arts	B.A.
Russian[1]	X	X	College of Liberal Arts	B.A.
			College of Education	B.S.
Secretarial and Office Specialties	X	X	School of Technical Careers	A.A.
Social Studies	X		College of Education	B.S.
Social Welfare	X		College of Human Resources	B.S.
Sociology	X	X	College of Liberal Arts	B.A.
Spanish[1]	X	X	College of Liberal Arts	B.A.
			College of Education	B.S.
Special Major[7]	X			B.A., B.S.
Special Education	X		College of Education	B.S.
Speech Communication	X	X	College of Communications and Fine Arts	B.S.
			College of Education	B.S.
			College of Liberal Arts	B.A.
Speech Pathology and Audiology	X		College of Communications and Fine Arts	B.S.
			College of Education	B.S.
Technical Careers	X		School of Technical Careers	B.S.
Theater	X	X	College of Communications and Fine Arts	B.A.

SUBJECT	MAJOR	MINOR	ACADEMIC UNIT	DEGREE
Tool and Manufacturing Technology (Numerical Control)	X		School of Technical Careers	A.A.S.
Uncommon Languages[5]		X		
University Studies	X			B.A., B.S.
Zoology	X	X	College of Science College of Education	B.A., B.S. B.S.

[1]Described under Foreign Languages and Literatures
[2]Described under Family Economics and Management
[3]Described under Physical Education
[4]Described under Curriculum, Instruction, and Media
[5]Described under Linguistics
[6]Described under Vocational Education Studies
[7]A special major may be completed in any academic unit

Visits to Campus

Southern Illinois University at Carbondale welcomes the opportunity to visit with prospective students. Mondays through Fridays, 8 A.M. to 4:30 P.M., admissions counselors are available to discuss admissions requirements and procedures, the various programs offered at Southern Illinois University at Carbondale, the procedures for applying for housing and financial aid, as well as general information about the University and community. The counselors can also arrange guided tours of the campus and meetings with representatives of appropriate departments or offices. In order to benefit most from the visit to Southern Illinois University at Carbondale, it is advisable to arrive before 2 P.M.

Arrangements for a campus visit can be made by writing School/College Relations, Office of Admissions and Records, Southern Illinois University at Carbondale, Carbondale, Illinois 62901, or by calling a toll free number in Illinois (800-642-3531) or the direct number (618-453-4381). Arrangements should be made at least two weeks in advance of the day requested. Groups desiring to visit the campus are urged to give a month's advance notice, specifying the number to attend, day and time of arrival, and special interests or requests.

Applying for Admission

Request application from the Office of Admissions and Records, Southern Illinois University at Carbondale, Carbondale, Illinois 62901, or call toll free in Illinois 800-642-3531. For admissions requirements see Chapter 2.

Campus Life

Office of Student Development

The professional staff of the Office of Student Development, located on the third floor of the Student Center, works with more than 300 student organizations in fiscal management, organizational matters, and helps organizations to better understand and utilize the policies and procedures of the University relating to student activities and governance.

Among the organizations are the Undergraduate Student Organization and Graduate Student Council, which are the official representative student organizations for their representative constituencies. It is the initial responsibility of these two groups to represent students in University affairs which determine student life on campus. The Black Affairs Council is the coordinating and governmental body for the eighteen black student organizations of the University. The Council takes a major responsibility for programming of social, cultural, and

educational programs for blacks. The Inter-Greek Council is the activity coordinating council for the University's eighteen social fraternities and eight social sororities. This council provides activities which create responsibility for and awareness of the academic community as well as the Carbondale community. The remainder of the vast number of student organizations consist of a varied list of special and public interest groups, religious groups, scholastic and professional honoraries, and departmental organizations. A year-round student voluntary program, Mobilization of Volunteer Effort, is also operated from this office.

The Office of Student Development provides a comprehensive orientation program for new students and their parents. The format of the orientation sessions introduces the participants to the purposes, offices, programs, services, and procedures of the University. The primary purpose of orientation is to reduce anxiety and concerns about entering a large university.

In cooperation with the Department of Higher Education, the Office of Student Development provides opportunities for students to receive academic credit for their participation in student activities, programming, student organizations, and student governance. Opportunities are available in student governance, leadership development training course for fraternity and sorority members, undergraduate internship/practicum in student activities, and leadership development training course for new student leaders and student life advisers.

The Office of Student Development is also involved with Parents' Weekend, Activities Fair, and programs and activities for international and non-traditional students.

Student Center

The Student Center is the community center of the University for all students, faculty, administration, alumni, and guests. It is not just a building — it is an organization and a program which together represent a well-considered plan for the community life of the University.

As a community center it performs four important missions. It supplies support services which complement the academic mission of the university through the bookstore, food service, information services, and meeting facilities. It is part of the educational program of the University and serves as a laboratory of citizenship and leadership through participation in its various boards and committees that provide a campus-wide social, cultural, and recreational program. It is an extension of the classroom which allows practicum students and graduate assistants and interns the opportunity to develop on-the-job expertise in their fields of learning. It serves as a unifying force in the university, cultivating interactions on a common ground between students, faculty, staff, alumni, and friends. It is a focal point to which alumni and students can relate when returning to campus.

The Student Center covers almost eight acres of floor space and is open approximately 16 hours a day, seven days a week. The University Bookstore sells new and used textbooks and school and personal supplies. A variety of food services are offered in the cafeteria, fast foods snack bar, pizza parlor, restaurant, and catering service. Other facilities and services are automated post office, ticket sales for most campus events, check cashing, Western Union money order receiving station, bowling lanes, billiard room, craft shop, art exhibit and display case areas, television and video lounges, and several general lounges for study and relaxation.

Other available facilities include ballrooms, an auditorium, and several private meeting and dining rooms. Offices in the Student Center are the Student Center Administrative Office, the Student Development Office, the University Programming Office, and the student organization and student government offices.

SIU Arena

The SIU Arena is designed to accommodate athletic events, meetings, musical programs, stage performances, and similar activities that demand a large indoor participant area or facilities to accommodate large audiences. The facilities and staff are available to help meet the requirements of the educational program as well as the intercollegiate athletics program, Area Services, the Division of Continuing Education, and student activities. The SIU Arena also provides a popular entertainment series to help fulfill the educational, cultural, social, and entertainment needs of the University community.

Shryock Auditorium

Shryock Auditorium, located amid "old campus" of Southern Illinois University at Carbondale, stands as one of the fine and performing arts centers of Southern Illinois. The auditorium is equipped to handle almost any type of event, from the performing arts on a grand scale such as opera and ballet, to large group meetings and conferences. The auditorium, seating over 1,200 guests, includes a dressing room complex capable of accommodating up to 70 performers, lighting and sound reinforcement systems incorporating some of the most advanced designs, and an enlarged stage area. Air conditioned throughout the guest areas, the facilities provide the utmost in audience comfort.

Campus Communications Media

WSIU TELEVISION AND RADIO

The SIU Broadcasting Service operates two maximum power, full-color television stations and one regional FM stereo radio station. The two television stations, WSIU-TV, Channel 8 in Carbondale, and WUSI-TV, Channel 16 in Olney, are affiliated with the Public Broadcasting Service and have a potential audience of more than 1,500,000 in their coverage area of fifty-one counties. WSIU (FM) a 50,000 watt stereo station at 91.9 FM, is affiliated with National Public Radio and serves a potential audience of over 1,250, 000 in its broadcast reach of forty-five counties. Its programming is wide-ranging, from popular and classical music to information, and a heavy schedule of locally-produced newscasts.

NEWSPAPER

The *Daily Egyptian,* campus newspaper, is published Monday through Friday when school is in session and distributed on campus and at other points in the community. The newspaper is a laboratory newspaper for students in the School of Journalism, produced under professional supervision, using a student editor and staff. More than 100 students work at news, production, advertising, and distribution jobs on the newspaper.

Men's Intercollegiate Athletics

Southern Illinois University at Carbondale has one of the finest all-around men's athletic programs in the country, fielding varsity teams in eleven sports: football and cross country in the fall; basketball, indoor track, gynmastics, swimming, and wrestling in the winter; and baseball, outdoor track, tennis, and golf in the spring.

During the school year, the Salukis are favored to win conference championships in indoor and outdoor track, baseball, and possibly once again, win the All-Sports trophy for the Missouri Valley Conference. Also the Saluki football team should field one of the better football teams in the Missouri Valley Conference.

Women's Intercollegiate Athletics

Women's Intercollegiate Athletics provides women with intercollegiate competition in eleven sports: badminton, basketball, cross country, field hockey, golf,

gymnastics, softball, swimming and diving, tennis, track, and volleyball. Competitive seasons in fall, winter, and spring allow athletes to participate in three different sports during the school year.

Women's Intercollegiate Athletics has a winning 39-year history, which includes a national golf championship (1968) and three national gymnastics titles (1970, 1974, 1975). During the 1979-1980 sports year, the Lady Salukis won state crowns in golf and gymnastics and fielded AIAW national entrants in five different sports.

The 1979-1980 sports year also saw Women's Intercollegiate Athletics conduct a number of top caliber events, including the AIAW Division I National Volleyball Championship.

The women's sports program continues to be affiliated with state (IAIAW), regional (MAIAW), and national organizations of the Association for Intercollegiate Athletics for Women (AIAW).

Intramural-Recreational Sports

The Office of Intramural-Recreational Sports, located in the Student Recreation Center, provides campus-wide, year-round programs to meet the needs of individuals wishing to participate in sport or leisure time activities. Program opportunities are available at the Student Recreation Center, various campus playfields, tennis courts, and Lake-on-the-Campus.

Intramural sports offers organized tournaments and special events for individual and team competition. Recreational sports programs include informal recreational opportunities, recreation for special populations, sport clubs and aquatic activities at the 40-acre Lake-on-the-Campus.

The newly constructed Student Recreation Center houses a gymnasium, an Olympic-size swimming pool, eight handball/racquetball courts, a martial arts room, a golf room, a dance studio, a weight room, and saunas in each locker room.

A large equipment room provides recreational equipment for indoor and outdoor use. Base camp provides equipment rental for backpacking and camping items are also available at a nominal fee.

Leisure exploration service offers information, workshops, and leisure counseling to assist students with awareness of recreational opportunities and leisure alternatives on campus and throughout Southern Illinois.

For detailed information concerning programs and facilities, contact the Office of Intramural-Recreational Sports.

Campus Services

Library Affairs

Morris Library, named after Delyte W. Morris, University president from 1948 to 1970, is an eight-level building which contains approximately 1,500,000 volumes, some 17,300 current periodicals and serials, and 1,600,000 units of microforms. Collections of government documents, maps, films, framed art prints, and phonograph records exist as well. With the exception of those in the special collections, most books and journals are arranged on open shelves and are accessible for browsing.

Morris Library houses four subject divisions (education/psychology, humanities, science, and social studies), a reserve reading room, learning resources service, special collections, and the undergraduate library. Microtext reading equipment is available in each subject division and the undergraduate library; the phonograph collection and listening equipment are provided in the humanities division. A central card catalog, identifying most of the collection, is located on the first floor; as is the central circulation desk where materials are checked out,

using an automated circulation system. The browsing room, prominently located on the first floor opposite the circulation desk, contains recent books of a popular nature to provide recreational and avocational reading. Coin-operated photocopying machines are available to patrons on each floor.

The undergraduate library, located on the first floor, contains a collection of some 80,000 volumes that are considered basic to the undergraduate curriculum. A professional staff is available to provide special attention to the needs of undergraduate students and assist them in finding information they want in a universe of materials as large and complex as a research library.

An on-line bibliographic search service offers over 100 machine-readable data bases which may be searched via a computer terminal. Reference librarians in each subject divison are available to aid the researcher in developing a search strategy to obtain a computer-produced bibliography on a variety of topics.

Learning Resources Service, located in the basement of Morris Library, has a broad range of instructional development and improvement services available to the faculty and students. An instructional design staff works with faculty to improve instruction. A film library, equipment section, and photographic and graphics production units provide support for the instructional development program. A Self Instruction Center offers a variety of services for students, including slides, audio and video tapes, cassettes, PLATO (computer-assisted instruction) terminals, and combinations of these materials for classes and enrichment studies. The Student Media Design Laboratory is open to students who wish to produce instructional media for classes, projects, and the student teaching experience. Professional assistance is provided for both design and production of the media. Electric typewriters are available for student use for a nominal fee.

Special collections, on the second floor, maintains the rare books collection, manuscripts and University archives. The use of these non-circulating materials is restricted to those doing research, but others are encouraged to visit the area and view the numerous exhibits. The major editorial projects, The Center for (John) Dewey Studies and the Ulysses S. Grant Association, compile, edit, and publish the works of these individuals.

Credit courses in bibliographic instruction, library use, and information retrieval are offered on a regular basis and a wide range of information and orientation brochures and materials, as well as a multi-media slide/tape presentation, are available.

The library staff recognize the complexity involved in using a research library and are eager to help students, faculty, staff, and others in their information needs.

Student Health Program

Southern Illinois University at Carbondale provides an extensive health benefits plan through the Student Health Program. Student input to the plan is provided through the Student Health Policy Board. Interested students may contact the chairman of the Student Health Policy Board in the Student Government office, 536-3381.

AREAS OF SERVICE

The Student Health Program offers the following interrelated programs.

Student Wellness Resource Center. All programs of the Student Wellness Resource Center are designed to help students improve their physical, emotional, mental, and spiritual well-being. Through its four major programs, the Student Wellness Resource Center offers groups, individual counseling, activities, workshops, and resources for students. Lifestyling program is designed to assist students in developing and maintaining their own evolving lifestyle in order to maximize health and well-being. A holistic health approach is utilized, emphasiz-

ing exercise, nutrition, stress management, and ecological awareness. Human Sexuality Services offers a supportive, nonjudgmental environment to assist students in exploring and clarifying their feelings, needs, and concerns relating to sexuality. The Health Activation program encourages increased individual responsibility for preventing preventable health problems, self-evaluation and self-treatment of minor ailments and injuries not requiring clinical attention, and appropriate utilization of medical services when the need arises. The Alcohol Education Project helps students make responsible decisions regarding the use of alcohol and helps discourage its irresponsible use. Services are provided by professionals and trained peer educators. Synergy, Inc. is a not-for-profit community agency contracted to provide peer counseling, crisis intervention, and alcohol abuse services to the student body.

On-Campus Outpatient Care. This care or primary care is the same as that offered by private general physicians. The Health Service is staffed by the equivalent of seven full-time physicians, a full-time psychiatrist, support staff, and student workers. The student benefits include all routine office care and a wide range of diagnostic tests, including laboratory procedures. The benefit does not cover pharmacy charges and Pap tests, which are provided at cost, and a basic $5.00 x-ray charge. While a walk-in clinic is open during regular hours, students should make appointments to see physicians by calling 536-2391.

On-Campus Infirmary. On-campus infirmary or intermediate care is provided in a ten-bed inpatient setting on the second floor of the Health Service. Intermediate care is provided for illness when medical and skilled nursing care is required but the student is not in need of hospitalization. Admission to the infirmary must be authorized by a Health Service physician or by an emergency room physician during the hours when the Health Service is closed. Fee-paying students are entitled to room and board, diagnostic laboratory, and physician visits at no charge. Medications are charged on a replacement cost basis and a basic $5.00 charge for x-rays will be billed to the student.

Specialty Care. Specialty care is avaialable through contractual arrangements with local health care agencies. Students must be referred by a Health Service physician or a Memorial Hospital of Carbondale emergency room physician to receive this benefit. The specialty areas of dermatology, general surgery, gynecology, internal medicine, orthopedics, pathology, radiology, urology, and ear, nose and throat.

Hospitalization. Hospitalization or secondary care is provided at Memorial Hospital of Carbondale. Students must be admitted by a Health Service physician, an emergency room physician, or a physician to whom they have been referred by either of the above. Hospitalization and all necessary treatment is provided at no cost for up to 31 days per illness. For information on limitations or exclusions, contact the Student Health Program, 453-3311.

Emergency Services. Emergency services are provided at the Health Service during the hours it is open. Through a contract with Memorial Hospital of Carbondale, the Student Health Program offers emergency services to students when the Health Service is closed. Medical trauma is always handled at the emergency room of Memorial Hospital of Carbondale. All emergency services are covered, except a $10.00 users fee. This charge will be billed to the students and must be paid during the semester the charge is incurred. An arrangement has also been made with Jackson County Ambulance Service to allow students with medical emergencies to use the ambulance to get to the Health Service or emergency

room at no cost. Students should use the health service during regular hours, Memorial Hospital of Carbondale emergency room when the Health Service is closed, and the Jackson County Ambulance Service, 529-2121, for medical emergencies.

Out-of-the-Area-Benefits. Out-of-the-area-benefits or extended/supplemental care is provided to students for medical services that are not provided in the Carbondale area or are needed for acute or emergent care when the student is out of the area. Through special arrangements with an insurance company, the following reasonable medical expenses incurred will be paid: (1) If hospitalized the student must pay the first $25.00. The insurance company will pay the next $500 of hospital, x-rays, and laboratory fee expenses. (2) The plan has a coinsurance provision which provides for payment of 75% of hospital expenses over the initial $500; reasonable and customary surgical in-hospital doctor calls, emergency room services; and ambulance service. The plan carries an overall maximum payable of $20,000 for incurred expenses. The fee information is subject to change because it is bid with insurance companies on a periodic basis.

Dental Services. The Student Emergency Dental Service provides dental care to resolve emergency dental disorders. For appointments or information, call 549-5651. The School of Technical Careers dental hygiene program offers students routine dental cleaning and x-rays at no charge. Call 529-1342 for further information and appointments.

LOCATION OF SERVICES

The services of the Student Health Program are available in several locations. The outpatient clinic, infirmary, and diagnostic services are located in 115 Small Group Housing, 453-3311, or 536-2391, for appointments with a physician. The pharmacy, administrative offices, and student wellness resource center are located at 112 Small Group Housing, 453-3311. The student emergency dental service is located at the School of Technical Careers, 549-5651. Synergy is located at 905 South Illinois Avenue, 549-3333. Memorial Hospital of Carbondale is located at 404 West Main Street, 549-0721. The Carbondale Clinic is at 2601 West Main Street, 549-5361.

ELIGIBILITY

Any student who is enrolled at Southern Illinois University at Carbondale and has paid the student medical benefit fee is eligible for services. If a refund has been issued for parts of the fee, as explained below, the student is still eligible for service in the areas not refunded. Eligibility for the program extends from the first day of the enrollment period for which fees have been paid to two weeks after the last day of that semester. However, students are covered through all break periods when enrollment is continuous from semester to semester. An optional summer plan is available to provide students with medical benefits over the summer vacation. Dependents of students or staff members of the university are not eligible for Student Health Program benefits. However, a family plan for dependents is available to students through the local insurance agent. For more information on eligibility and these plans, call 453-3311.

FEES

The $45.00 student medical benefit fee is distributed to the programs as explained below. A student who receives a refund of any portion of the fee is not eligible for the benefits of that program but would continue to be eligible for benefits of any programs for which the fees have been paid.

$ 3.00	Student Wellness Resource Center
25.00	On-Campus Outpatient Program

2.00	Infirmary On-Campus
3.50	Specialty Care
4.00	Hospitalization, Memorial Hospital of Carbondale
3.50	Emergency Services, Memorial Hospital of Carbondale
1.00	Emergency Services, Jackson County Ambulance Service
1.00	Out-of-the-Area Benefits
2.00	Student Emergency Dental Service
$45.00	Total

Students who carry their own medical insurance or are covered under their parents' policy may be eligible for a refund of portions of the student medical benefit fee. Refunds of the fee are made on the basis of comparable or duplicate coverage for each area of service. Students who think they may qualify for a refund may apply no later than the end of the third week of each semester by contacting the insurance claims officer of the Student Health Program. When applying, students should provide their fee statement and a copy of their insurance policy. The insurance department is located in Room 118 of 112 Small Group Housing, 453-3311.

The limits of the Student Health Program benefits are (1) overall maximum of $20,000 per illness and (2) $300 or eight visits whichever comes first for the specialty care benefit.

CONFIDENTIALITY OF INFORMATION

All visits to any division of the Student Health Programs are confidential. Medical information may be released when authorized by the student. Medical information may also be released without authorization from the student to a court when subpeonaed, to the University legal counsel when the university is being sued and the medical information would be pertinent, and to the public health department as required by law when a student is suffering from a reportable communicable disease. In addition, cases involving firearms and criminal offenses must be reported to the police.

Women's Services

The general purpose of the office of Women's Services is to provide information and support for women in making educational and personal decisions. This is done in four major ways: serving as a clearinghouse for resources and referrals; developing and implementing outreach programming, i.e., groups, workshops, seminars, lectures; providing consultation for groups and individuals in designing services for women both on campus and in the community; and serving in an advocacy/supportive role for women students and staff. Services are not limited only to career concerns but are also aimed at providing experiences for personal growth in anticipation of the changing roles of women.

Staff is available for assistance in finding information about financial aid, day care, support groups, and other subjects. Programs designed to aid adult women returning to school include a peer assistance service, peer support groups, emergency contact services for parents attending classes, and a monthly newsletter.

Concerned about the personal safety and wellbeing of all University women, Women's Services monitors the women's night safety transit system and the brightways pathways on campus as part of campus safety and rape prevention. In addition, Women's Services works in cooperation with a wide variety of campus and community agencies involved with the problem of sexual assault. Prevention education is available for residence halls, classes, and groups upon request. Staff members are available on a walk-in or appointment basis. A resource library is also available.

Career Planning and Placement Center

The Career Planning and Placement Center provides students with the opportunity to explore careers, to prepare for entry into the working world, and a regional test center to write examinations for admission certification and credit by examination.

The Testing Division offers GED and admission tests required for undergraduate and graduate admission. Credit by examination, local proficiency, and the national CLEP and PEP programs are available with required preregistration. Many brochures also provide helpful sample test allowing candidates to become familiar with test content and emphasis. Certification, licensure, and competency programs as required by state and professional associations are also offered as a service to candidates.

Students who have not chosen a major, or who wish to examine work values and assess their abilities, can talk with professional career counselors on a one-to-one basis. They will be assisted in clarifying their ideas about themselves and in identifying possible occupational alternatives. The career counselors also administer and interpret tests and surveys to determine an individual's aptitude, interest, achievement and personality factors. A career information library is maintained by the Career Planning and Placement Center and provides students with written and taped materials about career fields, specific job opportunities, and job search techniques.

Placement consultants are available to assist students and alumni with all aspects of the job search including resume writing, interviewing techniques, letters of application, and information about career opportunities in their field. The Career Planning and Placement Center is visited annually by over 400 recruiters, representing 175 businesses, government agencies, schools, and service organizations, who interview students for available positions with their organizations. Lifetime credential service is available to all students at the Career Planning and Placement Center. Students may establish a file containing their resume and letters of recommendation, which will be sent upon request to any employer seeking to fill a vacancy or to any graduate school of the student's choice.

The Cooperative Education Program is administered by the Career Planning and Placement Center. Students majoring in engineering and technology, business, or agriculture may seek assistance in arranging a career-related work experience or internship. The intermixing of academic study and professional practice provides the student with an opportunity for increasing career awareness, personal growth, dollar income, and ultimate employment success.

Counseling Center

The Counseling Center is staffed with professional counselors qualified to assist students with personal development and resolution of problems. Personal problems, marital adjustment difficulties, social skill development, parental conflict, and sex role awareness development are areas of frequent concern to students. Both group and individual counseling are provided within an atmosphere of confidentiality and trust.

Services to Students with Disabilities

The University maintains a strong commitment to make all services, programs, and activities equally available to students with disabilities. Disabled students are integrated into regular programs and services and special services are provided through the Specialized Student Services Office and other departments in order that this student population may obtain the maximum academic, social, and cultural benefits within the University community. Available services and programs include pre-admission information, pre-enrollment planning, orientation and mobility training, special transportation, special recreational activities,

physical therapy and speech therapy, career counseling and placement services, proctoring academic examinations, special materials and equipment for visually impaired students and learning disabled students, reader recruitment and referral, recruitment and referral of personal attendants, provision of interpreters and notetakers for hearing impaired students, wheelchair repair, special parking, liaison with academic departments and other offices, and liaison with agencies such as vocational rehabilitation and the Veterans Administration.

The campus is quite accessible and usable by students who use wheelchairs, and by those who are semi-ambulatory, visually handicapped, hearing impaired, or otherwise disabled. The University Housing Office provides modified housing in the Thompson Point Residential Area and in the family housing areas.

Persons with disabilities apply and are considered for admission in the same manner as other persons. The nature or severity of disability is not considered in the admission determination. Persons with disabilities interested in attending Southern Illinois University at Carbondale are encouraged to visit campus in order to discuss programs and services and to tour the campus. Disabled prospective students are also encouraged to formally apply for admission as far in advance as possible to ensure sufficient time for planning support services after being admitted but before the starting date of the semester.

Any further information may be obtained by writing to the Office of Admissions or the Specialized Student Services Office. The Specialized Student Services Office may be reached by calling (Area Code 618) 453-5738. This number provides opportunity for regular voice communication as well as a teletypewriter for communication by and with the deaf.

Office of the University Ombudsman

The Office of the University Ombudsman helps members of the University community who need assistance with a great variety of problems. It seeks settlement through explanation, investigation, and mediation between parties. In its operation, the office is independent of academic, administative, and business units of the University.

The office uses simple, orderly procedures in assisting students, faculty, and staff. The office advises clients as to the merit of their complaints and where appropriate seeks resolution before another body within the University.

The ombudsman has broad investigatory powers and access to all University records except medical files and has direct access to all University officials including those at the presidential and vice presidential levels.

Beyond assisting with individual problems, the ombudsman works toward change of policies and procedures which inequitably affect individuals.

All inquiries and records are confidential.

Clinical Center

The Clinical Center is staffed by professional personnel and supervised student diagnosticians, therapists, and counselors. It offers diagnostic and treatment services to faculty, staff, University students, and other individuals in the community. Cooperating in this clinic are the Departments of Curriculum, Instruction, and Media; Guidance and Educational Psychology; Psychology; Social Welfare; Special Education; Speech Pathology and Audiology; Physical Therapy and the Rehabilitation Institute.

Diagnostic services include assessment of psychological, speech, language, hearing, reading, and general education problems. Therapy services include various forms of counseling and behavior modification, clinical social work, speech, language, and hearing therapies, physical therapy, and educational remediation.

Consultant services are also available to professional persons and organizations.

Alumni Services

Alumni Services serves as a liaison between the University and its alumni. It maintains records on all graduates and provides necessary information to the academic units for various surveys and reports. It serves as a base for the SIU Alumni Association (a separate not-for-profit corporation) and carries the University message to thousands of alumni throughout the world through its publications and alumni club meetings. It conducts programs such as the "Great Teacher" award, and grants scholarships, provides for student loans, and the funding of selected faculty research projects.

University Museum and Art Galleries

The University Museum and Art Galleries serves the campus community and surrounding area through its active exhibit program and in its cooperative ventures with other academic units to improve the quality of instruction.

The exhibits housed in the north wing of Faner Hall are designed to give viewers an authentic glimpse of the area's past. Temporary exhibits are displayed in a gallery in the north wing of Faner Hall and in Mitchell Gallery located in Eileen E. Quigley Hall. These changing exhibits include a series of graduate student thesis presentations, faculty art, and photography, as well as exhibits from the permanent collections and special exhibits designed around a particular theme. In addition to these formal exhibits, many permanent collection objects are displayed at several other campus locations.

The University Museum and Art Galleries also serves students in more specific ways, by providing on-the-job training, courses in museum studies, and opportunity for creating and installing practicum exhibits of art, history, and natural science. Through these avenues, students are able to draw on the extensive collections which include approximately 1,500 works of art, and thousands of ethnographic items from many areas of the world.

The University Museum and Art Galleries provides a community service through an outreach program, a school loan program, and works with many area groups to provide meaningful learning experiences.

Campus Living

On-Campus Housing for Single Students

Southern Illinois University at Carbondale offers a variety of living experiences through the on-campus residence halls for single students. These halls provide not only the usual room and board but also have special opportunities for participation in recreational and academic activities. Two distinct advantages of living on campus are the ready access to all facilities of the campus, such as the library, and the absence of a need for special transportation since all campus activities are within easy walking distance. Meal service in all areas except Small Group Housing provides 20 meals a week; three meals each day six days a week and breakfast and noon dinner on Sunday. Unlimited second helpings are offered, and a new feature is a special diet table for students with special health problems. Co-ed living is available in all housing areas. All rooms are equipped with twin-sized beds, closet space, chest of drawers, desks, study chairs, and draperies. Linen service provides two sheets and one pillowcase weekly. Study lamps, towels, and other bedding materials must be provided by the student.

Freshmen under the age of 21, not living with parents or guardians, are required to live in on-campus residence halls, or similar privately-owned residence halls. The privately-owned residence halls must provide facilities, food service,

and supervision comparable to on-campus housing. Sophomores under the age of 21, not living with parents or guardians, are required to live in on-campus residence halls or University approved off-campus housing. Sophomore approved off-campus housing includes rooming houses and residence hall apartments. There are no university regulations for junior, senior, graduate, married students or those students 21 years of age or over. Housing contracts are for the fall and spring semesters or the school year with summer contracts being issued separately. University housing closes during breaks and official university vacations.

Thompson Point Residential Area. The Thompson Point residential area consists of eleven air conditioned halls, each housing approximately 120 students. Lentz Hall serves as the commons unit for food service and such services as a library, post office, snack bar, recreation center, and game rooms. The halls are located on the shores of Lake-On-The-Campus and provide unique opportunities at the lake for activities such as swimming, boating, fishing, and hiking. Also included in the Thompson Point residential area are special facilities for handicapped students.

University Park Residential Area. The University Park residential area is air conditioned and consists of Neely Hall, a 17-story residence hall and Allen, Boomer, and Wright Halls, 4-story men's triad buildings. Trueblood Hall serves as the commons unit providing the cafeteria, snack bar, game room, and post office. University Park is connected to the campus by an overpass which reaches from Trueblood Hall over the streets to the center of campus.

Brush Towers. Brush Towers consists of two 17-story, air-conditioned co-educational halls, Mae Smith Tower and Schneider Tower. The commons unit is Grinnell Hall which provides the cafeteria, snack bar, and game room.

Small Group Housing Area. The Small Group Housing area provides housing for recognized sororities and fraternities. Each building houses about fifty students and includes lounge and dining area, kitchen, and snack bar. Assignment of students to this area is by invitation from the fraternal organization.

For the 1980-1981 academic year, the costs for on-campus housing for an academic year are $1,792. The total contract may be paid in advance, by semester, or in monthly installments. However, an advance payment is due at the time the contract is signed and returned.

More information or application forms may be obtained by writing the supervisor of contracts, University Housing.

Housing for Married Students

There are 576 apartments both furnished and unfurnished, available for married students. The costs are from $156 to $180 a month with all utilities furnished.

Off-Campus Facilities

University Housing seeks continually to influence both the availability and quality of off-campus housing for students in terms of meeting as fully as possible the educational, physical, social, and economic needs of students living off campus as these needs relate to the objectives of the University. Numerous accepted living centers for freshmen and sophomore students off campus aid in the relationship between the student's living environment and progress toward the attainment of the educational goals. The cost for off-campus housing ranges from $200 to $400 a month. Information may be obtained by writing directly to the supervisor of Off-Campus Housing, Building B, Washington Square. It is not considered wise to contract for an off-campus living facility, sight unseen.

Student Work and Financial Assistance

A variety of financial aid programs including scholarships, grants, loans, and part-time employment are administered and coordinated by the Office of Student Work and Financial Assistance.

Application for Financial Assistance

Financial aid is usually packaged as a combination of grants, scholarships, employment, and/or loans. The total amount of the financial aid package is based upon the student's financial need which is the difference between the typical cost of attending Southern Illinois University at Carbondale and the amount the student and/or family may be expected to contribute toward that cost. To determine this financial need, it is necessary that students and their parents complete and submit an American College Testing Program Family Financial Statement (ACT/FFS) each year. In addition to determining financial need, the ACT/FFS allows students to apply for the Basic Grant (BEOG) as a part of the ACT/FFS submission process. All students are encouraged to apply to the Illinois State Scholarship Commission (ISSC) to be considered for a state monetary award to cover part or all of their tuition and fee expenses.

Students wishing first priority in consideration for financial aid awards must submit all aid applications by May 1, 1981.

Major Types of Assistance

Scholarships. All interested Illinois resident undergraduate students should apply for the Illinois State Scholarship Commission (ISSC) Monetary Award. This award could provide tuition and fees and is based upon financial need.

Grants. Every interested undergraduate student should apply for the federal Basic Educational Opportunity Grant (BEOG). This award is based upon financial need and funds are to be used for any educational expense. The Supplemental Educational Opportunity Grant (SEOG) is available for undergraduate students displaying exceptional financial need. Both BEOG and SEOG may be applied for through submission of a 1981-1982 ACT/FFS.

Loans. Loan programs include the National Direct Student Loan (NDSL), the Illinois Guaranteed Loan (IGLP). Applications information on these and other loan programs are available through the Student Work and Financial Assistance office.

Part-time Employment. Student work opportunities available include an on-campus work program in which more than ten thousand students work each year in one of more than two hundred student worker classifications. In addition, more than three thousand students are employed in off-campus jobs. Job referral and student payroll services are coordinated through the Student Work and Financial Assistance office. Student work require that a current ACT/FFS be on file.

Other. Veterans, Social Security, Railroad Retirement, and Civil Service Retirement benefits are also available to those who qualify.

A student work and financial assistance information brochure has been prepared which summarizes the various financial aid programs available, including eligibility requirements, amount of assistance, and where to apply. This brochure, as well as individual counseling, is available from the Office of Student Work and Financial Assistance, Woody Hall, 3rd Floor, B Wing, Southern Il-

linois University at Carbondale, Carbondale, Illinois 62901. The telephone number is Area Code 618, 453-4334.

Requirements for Transfer Students

Financial aid does not automatically transfer when a student changes institutions. For this reason, students who are transferring from another college or university to Southern Illinois University at Carbondale must have a financial aid transcript indicating all financial aid received from their present school sent to the Student Work and Financial Assistance Office. It is necessary for transfer students to check with the Student Work and Financial Assistance Office in order to determine if the assistance received at another institution will be available at Southern Illinois University at Carbondale. The financial aid transcript forms may be obtained from the Student Work and Financial Assistance Office.

In order to continue a National Direct Student Loan (NDSL), a Supplementary Educational Opportunity Grant (SEOG), or qualify for a work study job, students must reapply at Southern Illinois University at Carbondale. To determine whether an Illinois Guaranteed Loan can be continued at Southern Illinois University at Carbondale, the student should check with the lender.

Students who are receiving a Basic Educational Opportunity Grant (BEOG) and who are transferring at any time other than the fall semester must obtain a duplicate set of the Student Eligibility Report (SER) to submit to the Student Work and Financial Assistance Office. For those who are receiving the Illinois State Scholarship Award (ISSC), the Illinois State Scholarship Commission must be notified of plans to transfer to Southern Illinois University at Carbondale. The award amount will be recomputed and adjusted based on the costs to attend this University.

Academic Progress Standards for Financial Assistance

As a result of the federal legislative amendments of 1976 to the Higher Education Act of 1965, Southern Illinois University at Carbondale has instituted a policy regarding satisfactory progress applicable to students applying for or receiving financial aid. The policy requires that a student meet the academic standards as prescribed in the current bulletin. In addition, each student must also satisfactorily complete a minimum of 12 semester hours as a full-time student and six semester hours as a half-time student during each semester the student qualifies for and receives financial aid. Students who fail to attain these minimal standards will be sent letters indicating that they are being placed on financial aid warning for the next semester or summer session attended.

A student may be placed on financial aid termination when the student is not eligible to enroll for academic reasons or when the student is deficient by more than 18 hours as a full-time student or nine semester hours as a half-time student in the expected number of hours passed. Students who are on financial aid termination status cannot have their aid reinstated until such time as they are readmitted and/or their total number of hours passed is within six hours as full time or three semester hours for half time of the expected hours to be completed.

The financial assistance status of those students receiving financial aid shall be evaluated at the completion of each semester or summer session. The decision to impose a financial aid warning or termination on a particular student who has failed to meet the minimum standards shall be the responsibility of the Director of Student Work and Financial Assistance in consultation with the student's academic dean.

The Office of Student Work and Financial Assistance will notify by letter any student receiving financial assistance who is in jeopardy of losing such assistance because of a deficiency in the minimal standards. This notice will be addressed to the student's most current local address on file with the University.

It will be the responsibility of the student to inform the University of a correct mailing address at all times. Any change of address shall be noted with the Registration Center. The student's academic dean will also receive copies of all notice letters.

A copy of the complete guidelines for satisfactory academic progress for financial aid may be obtained by writing the Student Work and Financial Assistance Office.

Division of Continuing Education

The Division of Continuing Education is responsible for expanding the University's educational mission beyond regular course offerings and campus boundaries. Through off-campus credit programs, the on-campus evening and weekend program, adult education non-credit courses and conferences, programs for the military, the Labor Institute and the Touch of Nature Environmental Center, the division offers the University's resources to groups and areas in need of a particular educational program.

Off-Campus Credit

All off-campus credit programs adhere to the same standards of excellence as on-campus courses. Requirements for course work are the same and teaching faculty are approved by the department. Courses are offered throughout the region served by the University upon request or identified need. Graduate programs in agriculture, education, engineering, and rehabilitation administration, as well as undergraduate programs in university studies, industrial technology, occupational education and bachelor's degree programs in the School of Technical Careers are provided at approved sites.

The University accepts a maximum of 30 semester hours of credit earned through correspondence programs toward a bachelor's degree. Southern Illinois University at Carbondale does not operate a correspondence program. Correspondence work is accepted when completed at institutions that are regionally accredited if the grade is of *C* quality or better.

Persons may enroll for off-campus work on an audit basis provided facilities are available. They must receive the instructor's permission to do so, and are required to pay the same tuition fee as though they were registering for credit.

Evening and Weekend Program

The evening and weekend program is designed to provide individuals in the southern Illinois community with the opportunity to take up to 26 undergraduate hours of college work after 4:00 p.m. and on weekends with reduced fees. Individuals enrolled are not eligible to use certain campus services supported by fees. Tuition is the same as in all other undergraduate programs.

Individuals not enrolled in Southern Illinois University at Carbondale during the twelve months prior to application for evening and weekend programs and possessing a high school diploma or equivalent GED certificate are eligible for admission to the program. Students may take up to eight hours of credit during fall and spring semesters and five hours during summer session.

Travel Study Program

Travel study courses are scheduled yearly and take place during intersession as well as summer months. Registration takes place four to six months prior to the start of the course. Both undergraduate and graduate credit is available depending upon the nature of the course. Approximately ten offerings are available during each academic year, ranging in length from one week to one year. Courses

are offered worldwide and are taught by full-time faculty of Southern Illinois University at Carbondale. Most travel study courses do not require a specialized foreign language background.

Adult Education Conference and Short Courses

Adult education non-credit courses feature instruction by University faculty, as well as carefully selected specialists from business, industry, and other professions. Courses in a wide range of vocational, technical, and general education fields are designed to provide a spectrum of educational opportunities for adults in Southern Illinois.

Conferences, workshops, seminars, and symposia in virtually every field are conducted either on or off campus, at the most convenient site for participants. Traditionally, most conferences have been for local groups, but in recent years there has been a substantial growth in the number of state and national conferences hosted by the University. From original brainstorming sessions to completion of the conference, workshop, seminar, or symposia, the division is equipped with the staff, expertise, and materials to conduct a wide range of activities.

The Community Listener's Permit Program, a special non-credit program, enables people in the community to sit in on courses which are offered as part of the regular University credit curriculum. Almost all undergraduate University courses are open to participants in the Community Listener's Permit Program.

Office of Military Programs

The Office of Military Programs is a coordinating office working with the College of Education, the School of Technical Careers, and the College of Engineering and Technology which offer the final two years of degree programs at military bases. Principal functions are to establish uniform policies regarding registration, program changes, billings to and collections from students, processing of veterans benefits documents, changes in enrollments, and refunds. The office serves as the principal point of contact and represents the University with external agencies in matters pertaining to educational programs at military bases. For additional information refer to the section on student work and financial assistance in this chapter and to Capstone Program and credit granted for military experiences in chapter 2. Additional information may also be found in chapters 3 and 4 of the academic unit descriptions and majors. Students interested in admission should consult the Southern Illinois University at Carbondale base representative on the appropriate military base.

Labor Institute

The Labor Institute's objectives are: (1) to encourage research in the labor area; and (2) to organize and promote programs of education in the labor field designed to serve workers, employers and the public.

Touch of Nature Environmental Center

The Touch of Nature Environmental Center is a three thousand two hundred acre facility used for credit and non-credit programs. It serves both students and faculty of the University and the community. The center serves as a field site for the departments of botany, recreation, special education, zoology, and forestry. Its newly remodeled facilities have enabled the center to host conferences for business groups and educational organizations.

The programs at the center include a challenge camping experience, a recreational program for handicapped children and adults, and environmental workshops for high school students. The center is located southeast of Carbondale on Little Grassy Lake, adjacent to Giant City State Park.

International Education

The Office of International Education promotes the international dimensions of instructional, research, and service activities of the University. The office encourages the student body and faculty to explore and develop international interests, provides support for international research, coordinates international technical assistance projects, coordinates international cultural programs for the University and the broader community, advises students from the United States about overseas opportunities, publicizes international grant programs for graduate students and faculty, and provides a wide range of educative, supportive, legal, and contractual services for international students and faculty.

Aerospace Studies — Air Force ROTC

Aerospace Studies offers a two-year and a four-year program which are open to both men and women, leading to a commission in the United States Air Force. The four-year program is divided into the General Military Course (GMC), covering the freshman and sophomore years, and the Professional Officer course (POC), covering the last two years. Students qualify to enter the two-year program at the POC level by attending a six-week field training course during the preceding summer.

The GMC prepares students for the POC and provides them with an education for space age citizenship of long range value whether they remain civilians or become officers in the U.S. Air Force. The courses of the POC are designed to provide the basic knowledge, understandings, and experiences which are required to become an effective junior officer in the modern air force. The student learns about the wide range of USAF career specialities open and has an opportunity to request duty in those fields where qualified. Those qualified as pilots, who do not already fly, receive 25 hours of flying training plus ground school instruction during their final year before graduation.

Freshman and sophomore students enrolled in the four-year program are eligible to compete for full scholarships for their remaining years at the University. In addition to full tuition and fees, the scholarship provides a monthly tax-free subsistence allowance. Also, two-year AFROTC and State of Illinois (Senate Bill 381) scholarships are available on a competitive basis.

In addition to the courses offered for academic credit, Aerospace Studies sponsors related extracurricular activities. The Aerospace Club is open to all members of the student body. The Arnold Air Society, a national honorary service organization, is open to selected AFROTC cadets. Membership in the Angel Flight, an auxiliary of the Arnold Air Society, is open to selected undergraduate women. Angel Flight assists with community and campus service-oriented projects. The wives of married cadets are eligible for the Cadet Ladies Club which prepares wives and fiancees for participation in military family life.

Further information may be obtained from Aerospace Studies, 807 South University Avenue.

Army Military Science — Army ROTC

The senior Army Military Science Program offers a two-year and a four-year program of study, open to both men and women, that leads to a commission as an army officer in either the active army, national guard, or army reserves. The four-

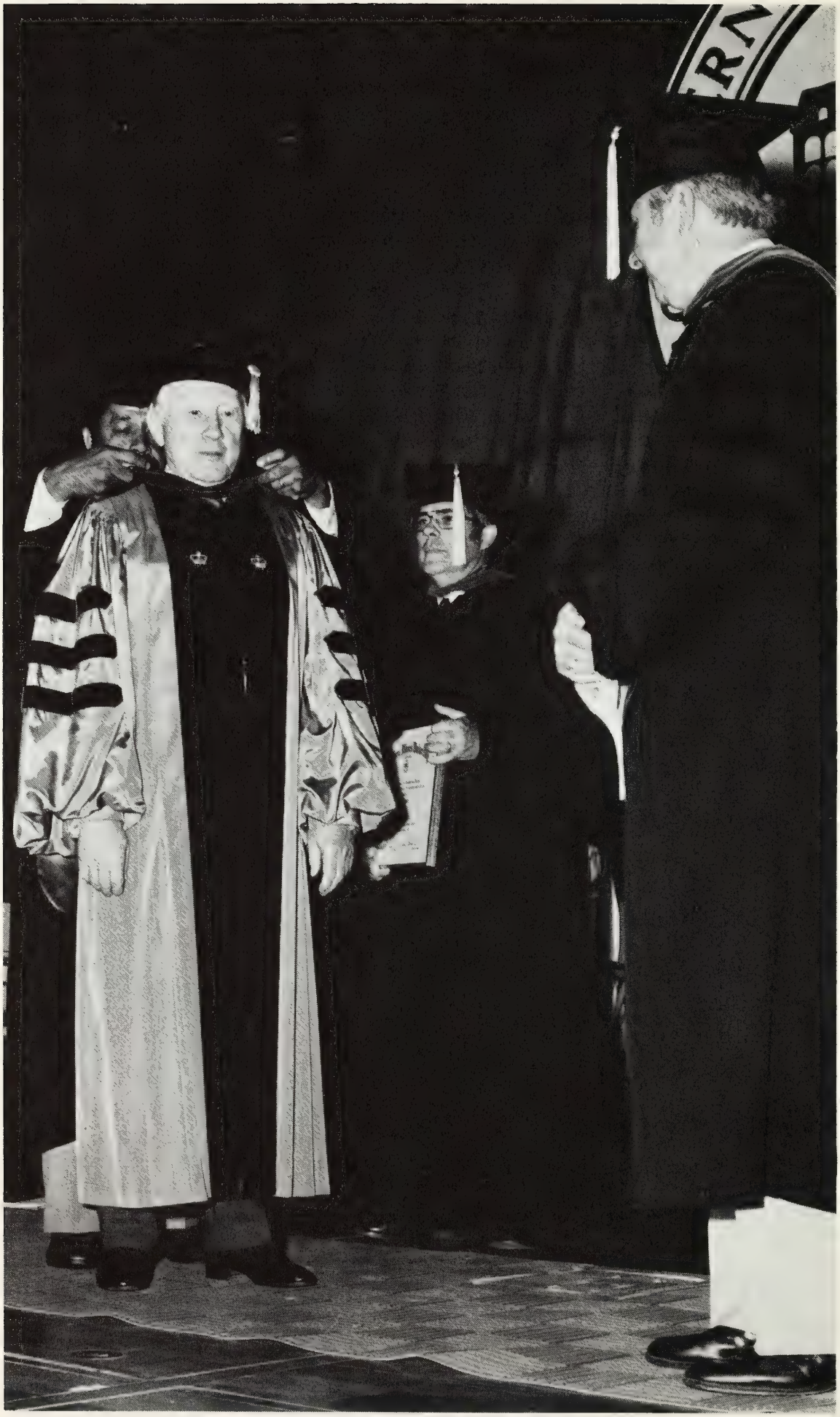
year program is divided into the basic course, covering the freshman and sophomore years, and the advanced course, covering the junior and senior years. Students qualify for entry into the two-year program at the advanced course level by completing a six-week basic leadership practicum at Fort Knox, Kentucky. Veterans, national guard, or army reserve personnel, students who have completed the basic course, and students who have completed three or more years of junior ROTC may also qualify for entry into the two-year program. Students may enter the advanced course once prerequisites are met, regardless of their academic year in school.

The basic course prepares the students for the advanced course and provides them with an education in citizenship, basic leadership and management skills, and personal enrichment experiences of long range value regardless of their future occupations. The advanced course is designed to provide basic knowledge, understandings, and experiences which are required to become an effective junior officer in the army. The student learns about the wide range of army career specialties open and has the opportunity to request duty in those fields where qualified. Students may request and be guaranteed reserve forces duty (RFD). Students completing the advanced course prior to graduating may request early commissioning in the Army Reserves or National Guard. Those students currently in the guard or Army Reserves may continue to participate in the guard/reserve unit and pursue a commission through the army's simultaneous membership program.

Freshman and sophomore students enrolled in the four-year program are eligible to compete for Army Military Science scholarships for one, two, and three years. These scholarships pay full tuition, fees, books, and a $100 per month subsistence allowance. Any Southern Illinois University at Carbondale student who has at least two academic years of school remaining and who can meet advanced course prerequisites may compete for an army ROTC scholarship. Illinois residents, who are enrolled in ROTC, can compete for state army ROTC scholarships, which pay tuition and other selected fees.

In addition to courses offered for academic credit, the Army Military Science program sponsors extracurricular activities. The Ranger Company, Drill Team, and Color Guard are open to all army ROTC students. The Pershing Rifles and Scabbard and Blade are national honorary societies open to selected Army Military Science cadets.

Further information may be obtained from Army Military Science, Building T-40, telephone (Area Code 618) 453-5786.



2 Academic Regulations and Procedures

Admission Policies, Requirements, Procedures

In order to attend classes at Southern Illinois University at Carbondale, students must gain official admission to the University and must complete the enrollment process, which includes advisement, registration, and payment of fees.

Applications for admission to the University are accepted anytime during the calendar year but should be submitted at least thirty days prior to the beginning of classes.

The University may close admission for students or programs whenever the availability of faculty or facilities warrant.

All beginning freshman applicants must submit entrance examination scores except those who are twenty-one years of age or older who qualify for admission by class rank. Transfer students are also required to submit entrance examination scores if they are less than twenty-one years of age and have fewer than twenty-six semester hours (thirty-nine quarter hours) of acceptable transfer work. Currently the ACT (American College Test) is the required entrance examination.

Admission of Freshmen

To be eligible for admission, applicants must be graduates of recognized high schools. Graduates of non-recognized high schools may be admitted to the University by an entrance examination. Persons who have not completed high school may be considered for admission by completing the GED test provided they meet the requirements to write this examination.

All admissions granted students while in high school are subject to the completion of high school work and graduation from high school.

Students entering the University as freshmen are admitted in the schools or colleges within the University that offer the academic programs they indicate they plan to pursue. Students who are undecided as to the course of study they want to follow are admitted to the General Academic Programs unit in pre-major advisement or to selected other units with an undecided major.

Students who are admitted as beginning freshmen but enroll at another college or university prior to their enrollment at Southern Illinois University at Carbondale will automatically void their admission as beginning freshmen. It will be necessary for the student whose admission is voided to reapply for admission and be considered for admission accordingly.

While beginning freshmen are considered for admission on the basis of a combination of class rank and test scores, it is strongly recommended that students will have completed in high school a comprehensive academic program. Recent studies have indicated a number of deficiencies among students in such basic skills as reading, writing, and mathematics. Therefore, students should attempt

to complete as many courses as possible in English, mathematics, science, etc., before entering college.

ADMISSION OF FRESHMEN TO BACCALAUREATE PROGRAMS

High school graduates who: (1) have an entrance examination score at the fiftieth precentile or higher or (2) have an entrance examination score at the thirty-third percentile or higher and rank in the upper half of their graduating class based on class rank are eligible for admission to any semester. Those students who qualify for admission to any semester will be considered for admission after completion of their junior year in high school.

High school graduates who do not meet the admission requirements above are urged to submit applications for admission to the University. If they demonstrate potential for academic success, they may be considered for admission through the Special Admissions Program. Students admitted through the Special Admissions Program are admitted in good standing for fall semester. They are required to participate in academic assistance activities including tutorials and courses designed to teach basic skills which are designed to enhance their opportunities for success.

High school graduates who do not meet the requirements above but who rank above the thirty-third percentile by either class rank or entrance examination scores are admissible for the spring semester on a conditional basis. The conditions are (1) that the student must enroll for a minimum of twelve semester hours and complete at least ten semester hours of graded work and (2) that the student is admitted on probation and must meet the scholastic requirements for probationary students. Students who fail to meet either condition may not continue in attendance subsequent semesters unless approved for readmission by the dean of the school or college. Ordinarily, the student will not be considered for readmission for at least one academic year. Students who have been admitted or who qualify to be admitted on condition may earn transfer credit at another college or university prior to their spring semester matriculation, provided they earn a *C* average or above for any transfer work completed. If they do not earn a *C* average for transfer work, their admission will be withdrawn. Students who present twenty-six semester hours or more of transfer work should refer to the section of the bulletin which explains admission of transfer students.

Students who are less than twenty-one years of age and have completed satisfactorily the General Educational Development Test can qualify for admission by achieving an entrance examination score above the thirty-third percentile.

ADMISSION OF FRESHMEN TO ASSOCIATE DEGREE PROGRAMS

High school graduates who rank in the upper two-thirds of their graduating classes based upon class rank or by score on the University entrance examinations are eligible for admission to any semester. Students who have passed the General Educational Development Test are also eligible for admission for any semester. Graduates whose rank is lower third by either class rank or test scores are admissible to the spring semester on a conditional basis. The conditions are: (1) that the student must enroll for a minimum of twelve semester hours and complete at least ten semester hours of graded work and (2) that the student is admitted on probation and must meet the scholastic requirements for probationary students. Students who fail to meet either condition may not continue in attendance subsequent semesters unless approved for readmission by the dean of the School of Technical Careers. Ordinarily, the student will not be considered for readmission for at least one academic year.

Students who did not meet the University baccalaureate admission requirements to enter as freshmen from high school during the regular academic year and elect to enter an associate degree program in the School of Technical Careers will not be considered for admission to a four-year program until they have completed 26 semester hours and have an overall *C* average.

Because a number of courses are offered on a sequential basis in the School of Technical Careers, some programs begin only in the fall. Applicants should review the admission application guide to determine when selected programs will allow students to enter the School of Technical Careers.

Admission of Transfer Students

A student who has attended another college, university, or postsecondary institution is required to submit an official transcript from each institution attended. All transcripts become the official property of Southern Illinois University at Carbondale and will not be returned nor issued to another institution.

Even though a student has attended another college or university, the student is required to have graduated from a recognized high school or completed satisfactorily the General Educational Development Test.

All grades earned in transferrable courses and in courses with a grade point value are used to calculate the grade point averages used for admission purposes. This includes grades earned in repeated courses, except those completed prior to the 1971 summer session. Transfer work is calculated according to Southern Illinois University at Carbondale regulations rather than those of institutions students have previously attended.

In the event transfer students' grade point average cannot be determined, their admission may require, in addition to a review of their college performance, standardized examinations and secondary school records.

Transfer students who have been suspended for any reason other than academic failure must be cleared by the Student Life Office before admission will be granted by the director of admissions.

Transfer students will be admitted directly to the school or college in which their major fields of study are offered. Students who are undecided about their major fields of study will be admitted to the General Academic Programs unit in pre-major advisement or to selected other units with an undecided major.

Transfer students who have completed a minimum of one year of work can be considered for admission one year in advance of their date of matriculation if they plan to transfer without interruption. Students who have completed less than one year of study may initiate the admission process after the completion of one semester or one quarter of work. Students who are enrolled in a collegiate program for the first time and wish to transfer upon completion of their first term may do so if they meet the University's admission requirements for beginning freshmen. Admission may also be granted one year in advance for selected programs to students who are in their first term of a collegiate program provided they qualify for admission as beginning freshmen. Admission granted to a student on partial or incomplete records is granted with the condition that the student will have an overall *C* average and be eligible to continue at the last school attended at the time of matriculation. Students whose final transcripts indicate a grade point average or scholastic standing less than that required for unconditional admission will have their initial admission withdrawn.

ADMISSION OF TRANSFER STUDENTS TO BACCALAUREATE PROGRAMS

Students who have an overall *C* average, 2.0 on a 4.0 scale (all institutions), and are eligible to continue their enrollment at the last institution of attendance will be eligible for admission to any semester. If a student is seeking admission with fewer than twenty-six semester hours, the applicant will be required to meet the admission requirements of a beginning freshman as well as a transfer student for unconditional acceptance.

Students who do not meet the University's transfer admission requirements will have their applications reviewed thoroughly. Those students who submit evidence of scholastic aptitude can be considered for admission on a probationary

basis. Students who have been placed on scholastic probation or academic suspension from another college or university will be considered for admission by the Office of Admissions and Records only if an interruption of education has occurred and there is tangible evidence that additional education can be completed successfully. Tangible evidence might include: (1) an interruption of schooling for one or more years, (2) military experience, (3) work experience, and (4) previous academic performance.

Students who have graduated with an associate degree in a baccalaureate-oriented program from a two-year institution may enter Southern Illinois University at Carbondale in good academic standing any semester provided they have not taken additional college work since their graduation. If they have, their admission will be considered on the basis of their conformity to the University's regular transfer admission standards.

Students applying for admission to the University who are transferring from programs which are not baccalaureate-oriented will be considered for admission as follows: (1) a student who has been enrolled in an institution which is accredited by one of the regional accrediting associations or is in candidacy status with one of the regional accrediting associations will be considered for admission on the basis of the regular transfer admission standards and (2) a student who has completed a two-year or equivalent program with a *C* average in an institution which is not accredited by one of the regional accrediting associations will be admitted if the institution is one recognized by NATTS, AMA, ABET, or similar accrediting bodies recognized by the National Commission on Accrediting or the United States Office of Education. Students who have attended a non-regionally accredited institution and who have not completed two-year or equivalent programs or have less than a *C* average will be considered for admission as entering freshmen.

Students who are transferring from programs which are not baccalaureate-oriented should refer to the section titled evaluation of transfer credit for additional information.

ADMISSION OF TRANSFER STUDENTS TO ASSOCIATE DEGREE PROGRAMS

Students who have an overall *C* average, 2.0 on a 4.0 scale (all institutions), and are eligible to continue their enrollment at the last institution attended are eligible to be considered for admission for any semester. If a student is seeking admission with fewer than twenty-six semester hours, the applicant will be required to meet the admission requirements of a beginning freshman as well as transfer students for unconditional acceptance.

Students who do not meet the University's transfer admission requirements will have their applications reviewed thoroughly. Those students who submit evidence of scholastic aptitude can be considered for admission on scholastic probation. Students who have been placed on scholastic probation or academic suspension from another college or university will be considered for admission by the Office of Admissions and Records only if an interruption of education has occurred and there is tangible evidence that additional education can be completed successfully. Tangible evidence might include: (1) an interruption of schooling for one or more years, (2) military experience, (3) work experience, or (4) previous academic performance.

A student who is admitted to an associate degree program as a transfer student and then decides at a later date to enter a four-year program must meet the University's baccalaureate admission requirements at the time of transfer.

New students may be admitted only for the fall semester to select majors in the School of Technical Careers. Please consult the admission application guide to determine when new students can be admitted to two-year programs in the School of Technical Careers.

Admission of International Students

In general, international students must meet the same academic standards for admission as those required of native students. As there is considerable variation between educational systems throughout the world, precise comparative standards are not always available. Therefore, international students are selected upon the basis of their former academic work, English proficiency, and evidence of adequate financial resources.

In addition to submitting copies of secondary school records and, when applicable, college transcripts, international students must also submit scores from TOEFL examination (Test of English as a Foreign Language). TOEFL scores are required of all international students who (1) have completed their secondary education in a country where English is not the native language, (2) have completed fewer than two years study in a United States high school, (3) have completed fewer than two years (60 semester hours) of collegiate training in an accredited United States college or university. Students who have completed their secondary education in a country where English is the native language are required to submit scores from either the American College Test or the Scholastic Aptitude Test.

Students who have acquired immigrant status are also required to demonstrate English proficiency. English proficiency can be demonstrated by successful completion of the TOEFL examination or a special English examination administered by the Center for English as a Second Language. Immigrants who have completed at least two years of study in a United States high school, have earned sixty semester hours in a United States college or university, or have completed their secondary education in a country in which English is the native language are not required to submit TOEFL scores or write a special English examination. They may, however, be required to submit university entrance examination scores if they are seeking admission as beginning freshmen or transfer students with fewer than twenty-six semester hours.

International students whose secondary school and college records are acceptable for admission purposes must also receive high enough TOEFL scores for unconditional admission. Students with a TOEFL score of 525 or higher will be granted unconditional admission. Applicants whose TOEFL score is between 475 and 524 will be admitted contingent upon completion of an English re-test administered by the Center for English as a Second Language. Students who fail to submit TOEFL scores, or who do not submit acceptable TOEFL scores, will be required to attend courses at the Center for English as a Second Language.

International students interested in making application to Southern Illinois University at Carbondale should address their inquiries to the Office of Admissions and Records, Southern Illinois University at Carbondale, Illinois 62901.

This school is authorized under Federal law to enroll nonimmigrant alien students.

Admission of Former Students

Students who have attended another institution since their previous enrollment at Southern Illinois University at Carbondale must submit an official transcript from that institution before they can be considered for re-admission. In addition, a student who has a financial obligation to the University must clear this hold before being considered for re-admission. Students who were suspended for scholastic or disciplinary reasons during their previous enrollment at the University must be approved for re-admission by the appropriate academic or student services dean before they can be re-admitted to the University.

It is advisable for former students to initiate the re-admission process with the Office of Admissions and Records early so that all inquiries may be answered and

the applicants can find time to complete any special requirements that may be imposed upon them. (See Scholastic Probation and Suspension System elsewhere in this catalog for further information.)

Admission of Special Categories of Students

Several types of students are given special consideration when seeking admission to the University. These are described below:

ADMISSION OF VETERANS

Veterans seeking admission or re-admission to the University are admitted in good standing regardless of their previous academic record provided that either (a) no additional education has been attempted or (b) such additional education has been of *C* quality or better. Prior academic work of an admitted reentering veteran is counted together with all subsequent work after admission. Veterans are required to submit all required admission credentials before their applications can be processed. This includes high school transcripts or GED scores and official transcripts from each college or university previously attended.

EARLY ADMISSION POLICY FOR FRESHMEN

Exceptionally capable high school students who (a) have completed their junior year, (b) are recommended by their high school principals, and (c) are approved by the director of admissions of the University will be permitted to enroll for University courses to be taken concurrently with their senior year of high school work. Such students will also be permitted to enroll for University courses offered during the summer session between their junior and senior years of high school, without being concurrently enrolled in the secondary school. Enrollment during the summer for students participating in this early admission program is limited to eight semester hours.

The early admission program is intended to be an acceleration and enrichment experience. Students should avoid taking university classes in those subjects in which additional work might be taken in high school. When a high school representative specifically recommends a course or courses to be taken, a university academic adviser will assist the student in arranging a schedule.

It is expected that high school principals will judge each case on its individual merits, and that in making their selections and recommendations they will consider such things as:

a. the rank held by the students in their high school classes;

b. the results of any standardized test which the students may have taken;

c. the opinion of the students' teachers regarding their aptitude for college level work; and

d. the opinion of the students' teachers regarding the students' having attained sufficient maturity to adjust to the social and emotional interactions involved.

ADMISSION OF ADULTS AS UNCLASSIFIED STUDENTS

Adults who have graduated from high school or who have passed the GED tests can be considered for admission as unclassified students. Students in this special category are non-degree students and are not required to submit all records normally required for admission to degree programs.

ADMISSION OF TRANSIENT STUDENTS

Students who are attending other collegiate institutions and want to enroll in the summer must submit an application for admission and an official transcript from the last institution attended. Transient students must meet regular University requirements which means they must have a *C* average and be eligible to continue their enrollment at the last institution attended.

Applying for Admission

High school students are urged to initiate the admission process during the seventh semester in high school. Transfer students who have completed a minimum of one year of work can be considered for admission one year in advance of their date of matriculation if they plan to transfer without interruption. Transfer students who have not completed one year of study may initiate the admission process after the completion of one semester or one quarter of work. Students who delay their admission processing until near the start of the semester which they wish to enter may find that they are unable to do so because all necessary documents required before the admission decision will be made have not been received. It is particularly important for transfer students to initiate the admission application process well before the starting date of the semester. Otherwise, delay in getting started, undesirable class schedules, or inability to attend the desired semester may result. Documents required in the admission process are listed below.

The admission process is initiated by writing the Office of Admissions and Records, Southern Illinois University at Carbondale, Carbondale, Illinois 62901, indicating a desire to apply and requesting admission materials. The materials that are sent include the application and related forms that need to be completed along with procedural instructions. Information is also included relative to housing and financial assistance.

DOCUMENTS REQUIRED FOR ADMISSION

Among the items required by the University before an admission decision is made are the following:

1. The completed application form from the students.
2. Transcripts of previous educational experience. For high school students the request is for two copies of the high school transcript or a copy of the General Educational Development Test scores. Transfer students must submit to the Office of Admissions and Records an official transcript from each institution previously attended. In addition, transfer students presenting fewer than 26 semester hours (39 quarter hours) of completed work must provide to the University a copy of their high school transcript or General Educational Development Test scores. Transfer students who have attended an institution which is not accredited by a regional accreditation association and have completed less than an associate degree or the equivalent or have less than a *C* average must also submit copies of their high school transcripts and ACT scores.
3. University entrance examination scores. All students who are less than twenty-one years of age applying for admission directly from high school and all transfer students who have completed fewer than 26 semester hours (39 quarter hours) must have their official ACT scores sent to the University from the American College Testing Program, Box 451, Iowa City, Iowa 52240.

Applications for housing and financial assistance are separate from the admission process and directions relating thereto are contained in the brochures on these subjects which the students receive as part of the admissions process.

Transfer Credit

Transfer credit for students admitted to baccalaureate programs from baccalaureate programs is evaluated for acceptance toward University and General Studies requirements by the Office of Admissions and Records after the admission decision has been made. In general, students may expect to receive full credit for courses which were considered to be college level at the institution

where they were taken. Courses which are remedial or developmental will probably not be accepted by transfer. While the Office of Admissions and Records will determine the acceptance of credit and its applicability toward completion of General Studies requirements, the evaluation toward satisfaction of specific curriculum requirements is done by the department or agency directing the specific curriculum.

Transfer of credit which is considered to be vocational, occupational, technical, or terminal is subject to evaluation by the major department or academic unit. The decision will be made depending upon the program the student has completed and the program entered at Southern Illinois University at Carbondale. A student should not expect to receive credit if the transfer work was taken at an institution which is not accredited by one of the regional accrediting associations and the student earned less than an associate degree or equivalent or earned less than a *C* average.

General principles governing acceptance of transfer credit are as follows:

1. Completion of an associate degree in a baccalaureate-oriented program in an accredited two-year institution provides that the student will: (a) be accepted with junior standing and (b) be considered to have completed the General Studies requirements. For associate degrees earned at other than Class I Illinois two-year institutions, the transcripts will be reviewed by the Office of Admissions and Records. If the degree is determined to be baccalaureate-oriented, the same benefits will be extended to those graduates.
2. Credit from an accredited two-year institution is limited only by the provision that students must earn at least 60 semester hours of work at Southern Illinois University at Carbondale or at any other approved four-year institution and must complete the residence requirements for a degree from the University.

Further information on the application of transfer work toward satisfying General Studies and graduation requirements may be found elsewhere in this catalog.

Transfer credit for students admitted to associate degree programs in the School of Technical Careers is evaluated by the chairman in charge of the program the student plans to follow at the school.

Orientation, Advisement, Registration

Through a carefully designed system of orientation, academic advisement, and registration the University attempts to assure entering students an efficient and effective introduction to the University prior to the time they start class attendance. A more extensive program is provided for those students entering during the fall semester while abbreviated activities are in operation for the other semesters.

The University conducts an advance registration system. All continuing and new students have the opportunity and are expected to complete advisement and registration for a semester before its actual start.

During the summer several weeks are set aside for new freshman and transfer students admitted for fall semester to complete orientation, advisement, and registration. Students are invited to have their parents accompany them so they too may obtain a better understanding of the University than might otherwise be the case. The orientation program on these days is of necessity an introductory type in which questions about admission, housing, financial assistance, etc., can be answered. Later, at the start of the fall semester new students participate in additional orientation activities during which time they receive further introduction to university life.

Starting in May and extending through June the University notifies new students admitted for the fall semester when they are to come to the campus for advisement and registration. Through this process only the number of students that can be efficiently handled are involved each day. Students who cannot come to the campus during the summer or who delay applying for admission beyond the advance registration period may register at the start of the fall semester but are required to come to campus a few days before those who have registered during the summer period.

Similar procedures are followed at the start of the other semesters. Admitted students are kept informed of orientation, advisement, registration procedures, and the times when they occur by the Office of Admissions and Records in cooperation with the Student Activities Office.

Academic Advisement

Academic advisement is administered by the academic units. Each unit employs a selected group of trained advisers. They operate under the supervision of a chief adviser who is responsible to the dean of the academic unit.

The University accepts the importance of the academic advisement function. Insistence on receipt of transcripts and ACT scores prior to admission serves not only to determine admission but later provides suitable educational information to the advisers upon which decisions can be made relative to the proper courses to advise the students to take. On the basis of this information the advisers can make intelligent decisions relative to students who should receive advanced standing in courses or who should be urged to take proficiency examinations in courses about which they appear to be already well informed.

Registration

Registration for any session of the University is contingent upon being eligible for registration. Thus advance registrations, including the payment of tuition and fees, are considered to be invalid if the students are later declared to be ineligible to register due to scholastic reasons. Students may also be considered ineligible to register because of financial or disciplinary reasons if this is certified to the Office of Admissions and Records by the appropriate University office.

Detailed information about the dates and procedures for advisement and registration appears in each semester's Schedule of Classes, which is available from the Office of Admissions and Records.

Students should be familiar with the following general points about registration.

1. Students initiate registration with the advisement center of their colleges or schools.
2. The course request forms and program change forms must be processed through the Registration Center, Office of Admissions and Records.
3. Mere attendance does not constitute registration in a class, nor will attendance in a class for which a student is not registered be a basis for asking that a program change be approved permitting registration in that class. Students should complete the registration process before classes begin.
4. Enrollment changes to classes can only be made through the processing of an official program change form.
5. Tuition and fees are payable in advance and no student shall be enrolled in any educational unit until tuition and fees have been paid or officially deferred.
6. Students may not drop a course merely by stopping attendance. (See the Withdrawal from Courses and from the University section of this chapter.)
7. There is a terminal date near the end of each semester or session after which withdrawal from the University cannot be processed prior to the assignment of grades. As a result withdrawal will be allowed only in unusual circumstances.

This date is usually one week before final examinations start. The specific date appears in each appropriate Schedule of Classes.

Tuition and Fees and Other Financial Information

It is difficult to indicate the specific cost of attending the University because of the differences in personal spending habits. However, the following information may be helpful.

Tuition and Fees

Tuition and fees charged students are established by the Board of Trustees and are subject to change whenever conditions necessitate. All assessments are on a per-hour basis, with 12 hours considered full time. Students will be assessed the following tuition and fees each term:

ON-CAMPUS UNDERGRADUATE TUITION AND FEE SCHEDULES

	Illinois Residents			Non-Illinois Residents		
Semester Hours Enrolled	Tuition	Student Fees	Total	Tuition	Student Fees –	Total
1	$ 26.00	$ 59.65	$ 85.65	$ 78.00	$ 59.65	$ 137.65
2	52.00	67.05	119.05	156.00	67.05	223.05
3	78.00	75.45	153.45	234.00	75.45	309.45
4	104.00	84.85	188.85	312.00	84.85	396.85
5	130.00	94.25	224.25	390.00	94.25	484.25
6	156.00	103.65	259.65	468.00	103.65	571.65
7	182.00	113.05	295.05	546.00	113.05	659.05
8	208.00	122.45	330.45	624.00	122.45	746.45
9	234.00	131.85	365.85	702.00	131.85	833.85
10	260.00	141.25	401.25	780.00	141.25	921.25
11	286.00	150.65	436.65	858.00	150.65	1,008.65
12 or more	311.00	160.05	471.05	933.00	160.05	1,093.05

– Information concerning student fees and their distribution is given below.

The fees which have been established by the Board of Trustees are payable by all students unless they are specifically exempted by the Board of Trustees. All fees are considered to be institutional in nature and require payment regardless of whether or not the student receives direct benefits or is in a location which permits access to such benefits.



STUDENT FEE DISTRIBUTION

Semester Hours Enrolled	STS Grant (1)	Student Center (2)	Student Activity (3)	REC (4)	Athletic (5)	Medical (6)	BRF (7)
1	$2.25	$ 5.00	$ .65	$ 1.50	$ 2.50	$45.00	2.75
2	2.25	5.00	1.30	3.00	5.00	45.00	5.50
3	2.25	6.00	1.95	4.50	7.50	45.00	8.25
4	2.25	8.00	2.60	6.00	10.00	45.00	11.00
5	2.25	10.00	3.25	7.50	12.50	45.00	13.75
6	2.25	12.00	3.90	9.00	15.00	45.00	16.50
7	2.25	14.00	4.55	10.50	17.50	45.00	19.25
8	2.25	16.00	5.20	12.00	20.00	45.00	22.00
9	2.25	18.00	5.85	13.50	22.50	45.00	24.75
10	2.25	20.00	6.50	15.00	25.00	45.00	27.50
11	2.25	22.00	7.15	16.50	27.50	45.00	30.25
12 or more	2.25	24.00	7.80	18.00	30.00	45.00	33.00

STUDENT FEES INCLUDE

1. The Student-to-Student (STS) Grant Program Fee provides funding of a student grant program. The fee is payable by undergraduate students only. Undergraduate students who do not wish to participate in the program may seek a refund of the fee by contacting the Office of Admissions and Records within ten days of the date of payment of fees.
2. The Student Center Fee provides funding for operation of the Student Center.
3. The Student Activity Fee provides funding for student organizations and activities on campus.
4. The Student Recreation Fund (REC) Fee provides funding for construction and operation of physical facilities for student recreation and intramural programs.
5. The Athletic Fund Fee provides partial funding of the University's intercollegiate program for men and women.
6. The Student Medical Benefit (SMB) Fee provides funding for a comprehensive health program including on-campus out-patient care, infirmary care on campus, emergency services, hospitalization, specialty care, emergency dental care, out-of-the area benefits, and prevention programs. Students who pay the fee are entitled to full medical benefits at the Student Health Program. Students who have comparable coverage may seek a refund of the fee within the first three weeks of each semester by contacting the insurance department of the Student Health Program. Additional information may be found in Chapter 1.
7. The Bond Retirement (BRF) Fee replaces funds which were previously obtained from tuition payments and used to underwrite the funded debt operations of the Student Center and University Housing.

ADDITIONAL FEE INFORMATION

1. Students should refer to the Schedule of Classes for more specific fee information.
2. A late registration fee of $15.00 shall be assessed to all students taking on-campus classes who register after the designated registration period. This fee shall be non-refundable and non-waiverable, except when it is clearly shown that the late registration was caused by faculty or administrative action. Off-campus classes and registration in courses numbered 599, 600, or 601 shall be exempt from the fee.
3. Graduate, medical, and law students are not required to pay the student-to-student grant program fee so their student fees will be $2.25 less than the amount listed in the appropriate column above.

4. Permanent full-time or permanent part-time employees may be eligible for waiver of tuition and waiver of a portion of the student fees. Approval by the department head and the director of the Personnel Office must be given prior to enrolling for courses. Employees who are approved are required to pay the Student Center, the Student Attorney, and Student-to-Student Grant fees as listed in the table above.

5. In addition to the above fees, there is a graduation fee. For further information contact the Office of Admissions and Records.

6. Students holding valid state scholarships are exempt from the above tuition and fees to the extent provided by the terms of the specific scholarship held. An Illinois State Scholarship may cover all tuition and student fees or the scholarship may be a partial award. Also, honorary scholarships, which have no monetary value, may be awarded. An Illinois State Teachers Education Scholarship, Illinois Military Scholarship, or Illinois General Assembly Scholarship exempts the student from paying the tuition, the student activity fee, and the graduation fee. An Illinois Scholarship for Dependents of Prisoners of War or an Illinois Bilingual Scholarship exempts the student from paying tuition and all mandatory non-refundable fees.

7. Other charges which students may incur are those for departmental field trips, library fines, and excess breakage. Also, students taking a course involving use of materials, as distinct from equipment, will ordinarily pay for such materials.

8. Students registering for courses on an audit basis pay the same tuition and fees as though they were registering for the courses for credit.

9. Out-of-state students will find the official University regulations governing determination of residency status for assessment of tuition later in Chapter 2.

10. Medical students are not required to pay Student-to-Student Grant Program Fee. In addition, medical students in Springfield are not required to pay Student Center, Athletic Fee, Student Recreation or the Bond Retirement Fee and pay $30.00 of the Student Medical Benefit Fee.

11. Students enrolled in public service courses pay only tuition and $3.00 per hour in fees. The fees are divided equally between Student Center and Student Medical Benefit Fees. Students who combine enrollment in public service courses and regular on-campus courses pay tuition and fees for the combined total of hours enrolled.

12. Students enrolling in off-campus courses pay tuition only. Students who combine enrollment in on- and off-campus course pay tuition only for hours off campus plus tuition and fees for hours enrolled on campus.

PAYMENT AND REFUNDING OF TUITION AND FEES

Tuition and fees are payable each semester during the academic year. Students who register in advance receive a tuition and fee statement by mail and may pay either by mail or in person at the Bursar's Office, by the deadline date, in accordance with instructions accompanying the tuition and fee statement. Otherwise their advance registration is cancelled and they must register again later and may be subject to a late fee.

Students who process a program change which places them in a different tuition and fee category than the one for which they originally registered will be billed additional tuition and fees when appropriate. If the change places them in a smaller tuition and fee category and if they have processed the program change within the first three weeks of the semester, they will receive a refund provided their account carries no other charges.

Students who officially withdraw from school by the specific withdrawal deadlines will receive a credit to their University account. Students with credit balances in their account will receive a refund by mail approximately three weeks from the date of withdrawal.

DEADLINES FOR WITHDRAWING FROM SCHOOL TO RECEIVE A REFUND

If Classes Meet for	Deadline for Withdrawal to receive Refund
13-16 weeks	3rd week
9-12 weeks	2nd week
7 or 8 weeks	2nd week
4-6 weeks	1st week
2 or 3 weeks	1st week
less than 2 weeks	2nd day

No refunding of tuition and fees is made for a withdrawal occurring after the deadlines, except as described in the next paragraph.

Special consideration is extended to individuals who leave school for extended military service (6 months or longer). Students will be refunded full tuition and fees paid if they enter military service during the first five weeks of school. If students withdraw during the sixth through tenth weeks of school, they will be refunded half of the paid tuition and fees, and they will receive one-half credit without letter grades for the courses in which they were receiving a passing grade at the time of withdrawal. When the withdrawal occurs after the tenth week, students will receive no refund, but will receive both grades and credit hours for the courses in which they are passing. In all instances, a copy of the military orders or a letter from the commanding officer is required for verification of impending military service. To be eligible for these benefits students must remain in school to within ten days of their military reporting date.

DEFERMENT OF TUITION AND FEES

When a student's financial aid has been delayed, or the funds which a student anticipates using to pay tuition and fees are unavailable by the regular due date for tuition and fee payment, the student may apply for an extension of the payment deadline date through a process called the fee deferment. Fee deferments are available to students who can demonstrate that they meet minimal eligibility criteria and can provide written verification of an ability to pay. Information on fee deferments is publicized each semester in the Office of Student Life, the Office of Admissions and Records, the Bursar's Office, the Student Work and Financial Assistance Office, and the *Daily Egyptian.* Eligibility criteria and procedural guidelines may vary from term to term and year to year. Students are advised to seek out the accurate information rather than assume they qualify for deferment.

Students applying for a fee deferment must first complete registration. Written verification from the source of funds to be used to pay tuition and fees must be presented in person to the Student Work and Financial Assistance Office for those students with approved scholarships, grants, or loans, or any combination of these. Instances of exceptional need will be referred to a financial aid officer when the source of funds is other than those identified above. Additional information on deferments is available in the Student Work and Financial Assistance Office. Phone or mail requests for deferments will not be accepted. The Dean of Student Life or a designee accepts appeals for exceptions to published eligibility criteria.

Grading, Scholastic Regulations, and Credit

Grading System

GRADE SYMBOL	DEFINITION	GRADE POINTS PER HOUR
A,	Excellent	4
B,	Good	3
C,	Satisfactory	2
D,	Poor	1
F,	Failure	0
P,	Pass. Used only in Pass/Fail system. See Grading System Explanation below.	
W,	Authorized withdrawal. See Grading System Explanation below.	
INC,	Incomplete. See Grading System Explanation below.	
AU,	Audit. No grade or credit earned. See Grading System Explanation below.	

GRADING SYSTEM EXPLANATION

The grades of *A, B, C, D,* and *F,* are included in determining student grade point averages.

An *INC* is assigned when, for reasons beyond their control, students *engaged in passing work* are unable to complete all class assignments. An *INC* must be changed to a completed grade within a time period designated by the instructor but not to exceed one year from the close of the term in which the course was taken, *or graduation,* whichever occurs first. Should the student fail to complete the course within the time period designated, not to exceed one year, or graduation, which ever occurs first, the incomplete will be converted to a grade of *F* and the grade will be computed in the student's grade point average. Students should not re-register for courses in which an *INC* has been assigned with the intent of changing the *INC* grade. Re-registration will not prevent the *INC* from being changed to an *F.*

The Pass/Fail Grading System is explained further under a separate section below. For *mandatory* Pass/Fail courses, the grades of *P,* when the student's work is satisfactory, or *F,* when the student's work is unsatisfactory, may be recorded. For a *P,* the hours apply toward graduation but the grade does not affect the grade point average. For an *F,* the hours do not apply toward graduation but the grade does count in the grade point average. For *elective* Pass/Fail courses, the instructor of the class will assign regular letter grades of *A, B, C, D, F,* or may assign an Incomplete if the work is not finished. The grade of *A* will be recorded as an *A* and will be counted in the grade point average. Grades of *B, C,* or *D* will be recorded as *P* and will not be counted in the grade point average although the hours will be counted toward graduation. The grade of *F* will be counted in the grade point average but the hours will not apply toward graduation. If a student receives an *INC* in a Pass/Fail course, the same regulations apply for completion of the work as apply for all other grades of *INC,* as explained above. Students enrolling in *elective* Pass/Fail courses must designate their intent to enroll on a Pass/Fail basis at the time of registration or prior to the first day of classes. Students registering for short courses must register for Pass/Fail prior to the beginning of those classes.

Students enrolling for an *Audit* must designate their intent to enroll on an *Audit* basis at the time of registration or prior to the first day of classes. Students registering for short courses must register for *Audit* prior to the beginning of those classes. Students registering for a course on an *Audit* basis receive

no letter grade and no credit. Auditors' Course Request Forms must be marked accordingly, and they pay the same fees as though they were registering for credit. They are expected to attend regularly and to determine from the instructor the amount of work expected of them. If auditing students do not attend regularly, the instructor may determine that the student should not have the audited course placed on their academic record maintained in the Office of Admissions and Records.

WITHDRAWAL FROM COURSES AND FROM THE UNIVERSITY

Students who officially register for a session may not withdraw merely by the stopping of attendance. They need to process an official withdrawal form. Outlined below are the procedures to be followed by students when withdrawing from courses and when withdrawing from the University (all courses for which registered).

If Classes Meet for	Deadline for Withdrawal to Receive Refund	Deadline to Withdraw*
13-16 weeks	3rd week	8th week
9-12 weeks	2nd week	6th week
7 or 8 weeks	2nd week	4th week
4-6 weeks	1st week	3rd week
2 or 3 weeks	1st week	1st week
less than 2 weeks	2nd day	2nd day

*In each instance, one day beyond the time listed will be allowed for processing of the withdrawal. Also, refer to the section on withdrawal from the University for a special provision concerning withdrawal from school beyond the 8th week.

Course Withdrawals. Students officially withdraw from courses through the program change process. This process starts with the academic adviser and is completed at the Registration Center. Official course withdrawals during the first three weeks of the semester result in no entry being made on the student's record. Periods prior to withdrawal deadlines for shorter sessions are correspondingly shorter. Unless a student has processed an authorized withdrawal from a course by the deadline in the schedule above, the student will not be allowed to withdraw from the course. It is the student's reponsibility to ensure that the withdrawal process is officially completed. It is probable that a student who does not withdraw by the deadlines, but stops attending during the second half of the semester, will receive a grade of *F*.

Withdrawal from the University. The dean of the student's academic unit may authorize a complete withdrawal from the University at any time during the semester prior to the assignment of grades. Students who withdrew from all classes will have a statement of withdrawal from the University and the week of withdrawal entered on their records.

Students who find it necessary to withdraw from the University after school has started and who are on campus should contact the Office of Student Relations to initiate the withdrawal process. Approval to withdraw should then be obtained from the student's academic dean. If they are unable to come to campus, they may write the Office of Student Relations asking that a withdrawal be processed through the academic dean.

Students who advance register, and pay their tuition and fees, and who then find they cannot attend school must process an official withdrawal the same as do those who withdraw after classes begin. In this case the process is the same as outlined in the paragraph above. Students who advance register but do not clear tuition and fees by the announced deadline date should have their registration cancelled by the University and need not withdraw.

PASS/FAIL GRADING SYSTEM

The purpose of the Pass/Fail grading system is to encourage students to broaden their education by undertaking intellectual exploration in elective courses outside their area of specialization without having to engage in grade competition with students specializing in those courses.

The Pass/Fail grading system for undergraduate students in good academic standing is governed by the conditions listed below:

1. There are two types of Pass/Fail courses: *mandatory* Pass/Fail courses, in which all students will receive either a *P* or an *F;* and *elective* Pass/Fail courses, in which students can elect either the traditional grading system or the Pass/Fail option.
2. No course is available under the Pass/Fail option without prior designation by the department or program in which the course is offered.
3. The Pass/Fail grade is *mandatory* in courses in which, in the judgment of the department or program, the traditional grading system is inappropriate.
4. The Pass/Fail grade is *mandatory* for all proficiency examinations.
5. The number of *elective* Pass/Fail credits is limited to sixteen semester hours overall, and to six semester hours in any General Studies area.
6. Formal permission of the major department or program is required before students are permitted to elect Pass/Fail for a major or minor requirement.
7. Students who earn an *A* in an *elective* Pass/Fail course will have the *A* recorded and counted in the grade point average.
8. The grade of *P* is not computed in the grade point average but the hours earned apply toward graduation. The grade of *F* is computed in the grade point average as a failure but no hours of credit are earned.
9. Instructors who teach *elective* Pass/Fail courses are not informed which students are taking these courses on a Pass/Fail basis.
10. A grade of *D* or higher is required for students to receive a *P.*
11. Students enrolling in elective Pass/Fail courses must designate their intent to enroll on a Pass/Fail basis at the time of registration or prior to the first day of classes.
12. Only the grades of *A* or *F* earned in Pass/Fail courses are to be included in computing grade point averages for Dean's List.

CHANGING OF GRADES

Grades given at the end of a course are final and may not be changed by additional work or submitting additional materials. When work is completed for a course in which an *INC* grade has been given, instructors notify the Office of Admission and Records of that fact, along with the final grade to be given, by completing a Grade Change Card.

Occasionally, students may wish to question grades given, either for accuracy or for removal of grades in situations when they were unable to perform some required step for reasons beyond their control. Only the assigned instructor for a course has the authority to change a grade except in the instance when the instructor is no longer employed by Southern Illinois University at Carbondale. Extenuating circumstances which transcend faculty judgment of the instructor may be appealed through procedures established by the instructor's school or college. Matters related to faculty judgment in grading may not be appealed. Any change of grade, except for changing an *INC* to a final grade within the time period designated, must be signed not only by the instructor but also by the departmental chairperson and the dean of the academic unit.

Scholastic Standing

The matter of scholastic standing is quite often of importance to students both while in school and later when they present a transcript of their educational record in support of their application for employment or additional schooling.

At the end of each semester or session of attendance a grade report is prepared for each student showing, in addition to the grades earned that semester or session, the scholastic standing and the grade point average for that semester or session and for the overall record at Southern Illinois University at Carbondale. It is important that students understand the University's system for computing grade point averages and the various grade point average requirements.

Transferred grades are not to be used in determining students' calculated grade point average, except that transfer students who are admitted on probationary status will be required to earn a 2.0 average semester by semester until a total of 12 semester hours has been earned, before they can be removed from probation.

The significance of the above should be clearly understood by transfer students when studying the general baccalaureate degree requirements. A 2.00 (*C*) average is required for the work taken at this University.

In computing students' grade point averages all grades of *A, B, C, D,* and *F* are included in determining the number of *calculated* hours. Each hour of these grades (1 hour of *A* is worth 4 grade points) is given its numerical grade points, and the total number of calculated hours is then divided into the total number of grade points to determine the student's grade point average.

Effective with the 1971 summer quarter all earned grades carrying grade point values are considered when computing students' grade point averages, including each earned grade in a repeated course that is taken during the 1971 summer quarter and thereafter. When computing averages through 1971 spring quarter the policy contained in the 1970-71 Undergraduate Catalog is followed.

Transfer from One School or College to Another. Students with less than a *C* (2.0) grade point average who desire to change from one school or college to another will be admitted to the new academic unit only if approved by the dean of that unit.

Scholastic Probation and Suspension System

Students are expected to make satisfactory progress toward a degree, certificate or other approved objective. To ensure that students are making progress their records are checked against the regulations below.

SCHOLASTIC PROBATION

When a student's cumulative semester average and the cumulative Southern Illinois University at Carbondale average fall below a *C* average (2.0), the student will be placed on scholastic probation. A student on scholastic probation may continue enrollment at Southern Illinois University at Carbondale provided the student does not accumulate six negative points. The student with more than six negative points will not be suspended so long as the term average is *C* (2.0) or above. A student will remain in the category of scholastic probation until the cumulative Southern Illinois University at Carbondale average is *C* (2.0) or higher.

While on scholastic probation students may not enroll for more than 14 hours per semester unless approved to do so by the dean of their academic unit. Other limitations may be established by the academic unit within which the students are enrolled.

CONDITIONAL STATUS

Students admitted on condition are on scholastic probation for the term admitted. In addition, they must enroll for a minimum of twelve semester hours and complete ten semester hours of graded work (*A, B, C, D, F*). Students admitted on condition who meet the hour requirements will be placed in good standing when they earn a *C* (2.0) average or higher. They will remain on scholastic probation if

they earn less than a *C* average but six or fewer negative points. Students who earn more than six negative points will be scholastically suspended.

TRANSFER STUDENTS ADMITTED ON PROBATION

Transfer students admitted on scholastic probation will remain in that status until they have earned a minimum of 12 semester hours of credit with at least a *C* average at Southern Illinois University at Carbondale. If they earn below a *C* for any session while on scholastic probation, they will be placed on scholastic suspension.

SCHOLASTIC SUSPENSION

Students will be scholastically suspended from Southern Illinois University at Carbondale if they fail to meet the requirements of their conditional or probational status. Students placed on Scholastic Suspension may seek reinstatement after a minimum of two semesters' interruption but must furnish tangible evidence that additional education can be successfully undertaken.

POSITIVE AND NEGATIVE GRADE POINTS

Positive and negative grade points are assigned to grades above or below a *C*. There are two methods to figure points depending upon the information which is available.

Grade Slip Available. The grade slip printed at the end of each semester lists the hours used in calculating the average and the grade points earned. Since *C* has a value of two grade points on a 4 point scale, grade points equalling a *C* average are exactly twice the number of hours calculated. All grade points over that amount are positive grade points. All grade points under the amount are negative grade points.

For example:

Hours Calculated	*Grade Points*		*Grade Point Average*
60	120	=	*(C)* 2.0

Twice the hours calculated equals 120 grade points. This is a *C* (2.0) average. A student with 60 calculated hours and only 115 grade points would have five negatives points (1.92 average). A student with 30 calculated hours and 55 grade points would have five negative points (1.83) average.

Grades and Hours of Credit Available. Whenever all grades and hours of credit are known and grade points have not been assigned as on the grade slip, a simple method is to assign positive and negative points as follows:

A = 2 positive points per hour
B = 1 positive point per hour
C = 0
D = 1 negative point per hour
F = 2 negative points per hour

For example:

3 hours of *A* × 2 positive points = 6 positive points
3 hours of *B* × 1 positive point = 3 positive points
3 hours of *C* × 0 points = 0
2 hours of *D* × 1 negative point = 2 negative points
4 hours of *F* × 2 negative points = 8 negative points

The ten negative points are balanced by only nine positive points so the sample has one negative point.

Negative points are also used to easily determine exactly what grades must be earned to raise the average to *C*. For example, a student with eight negative points could raise the average to *C* by earning four hours of *A* grade or eight hours of *B* grade, assuming all other grades earned are *C*.

Credit

UNIT OF CREDIT

Southern Illinois University at Carbondale is on the early semester calendar. All references to hours of credit in this catalog are to semester hours unless otherwise specified. One semester hour of credit is equivalent to one and one-half quarter hours. One semester hour of credit represents the work done by a student in a lecture course attended fifty minutes per week for one semester and, in the case of laboratory and activity courses, the stated additional time.

CLASS STANDING

Southern Illinois University at Carbondale requires students to earn at least 120 semester hours of acceptable credit in order to receive a baccalaureate degree. For academic classification purposes a freshman is a student who has completed fewer than 26 hours; a sophomore, from 26 through 55; a junior, from 56 through 85; and a senior 86 or more.

ACADEMIC LOAD

The University considers 12 hours as the minimum number to constitute fulltime attendance. This is the figure used for enrollment reporting purposes, by the Illinois State Scholarship Commission, and for Public Law 358 on the undergraduate level. Students attending school under some type of scholarship or assistance program that requires them to be enrolled as full-time students should check with the University office administering the program on this point. Further information on Public Law 358 is available at the Student Work and Financial Assistance Office.

Academic load guidelines are as follows:

LOAD	REGULAR SEMESTER	8-WEEK SUMMER SESSION
Minimum load for full time	12	6
Average load	15-16	7-8
Maximum load without dean's approval	18	9
Maximum load[1]	21	11

[1]This maximum may be exceeded by very special action of the respective academic dean, and rarely more than once in the student's degree program.

Students on scholastic probation may not take more than 14 hours without approval of the dean of their academic unit. Students employed full-time may not register for more than eight hours.

EXTENSION (OFF-CAMPUS) AND CORRESPONDENCE CREDIT

The University accepts credit earned through extension, off-campus, or correspondence programs toward the bachelor's degree. Not more than 30 semester hours may be taken in correspondence work.

Southern Illinois University at Carbondale does not operate a correspondence program. Correspondence work is accepted when taken from institutions which are regionally accredited if the grade is of *C* quality or better.

The University offers off-campus courses whenever (1) it is apparent there is a need and potential enrollment to justify scheduling, (2) it is possible to obtain a faculty member to instruct the class, and (3) adequate laboratory and library facilities are available.

Persons may enroll for off-campus work on an audit basis provided facilities are available. They must receive permission of the instructor to do so, and they must pay the same tuition as though they were registering for credit.

Further information may be obtained from the Division of Continuing Education.

CREDIT FOR MILITARY EXPERIENCE

Students who have served one year or more of active duty and who have received an honorable discharge may receive two hours of aerospace studies credit, two hours of physical education credit, and two hours of health education credit. Service of six months to one year may result in two hours of freshman aerospace studies credit; less than six months of active service allows no college credit.

Credit will be accepted for DANTES courses within the limitations enforced for extension and correspondence work. No credit is allowed for college-level GED tests. In evaluating credit possibilities based upon formal service-school training programs, the recommendations of the American Council on Education as set forth in the U.S. Government bulletin, *Guide to the Evaluation of Educational Experiences in the Armed Forces,* are followed.

In order to receive credit for military service, veterans must present a copy of discharge or separation papers to the Office of Admissions and Records.

Graduation Procedures

The academic requirements for the various baccalaureate degrees are listed in Chapter 3. Presented here are the procedures students expecting to graduate must follow.

Graduation ceremonies are held each year at the end of the spring semester and the summer session. Degree candidates must apply for graduation with the Office of Admissions and Records by not later than the end of the first week of the semester in attendance before the expected graduation date. Candidates who plan to complete requirements at the end of the fall semester should apply for graduation during the first week of the fall semester. Although there is no ceremony at that time, degree candidates who complete requirements will have that fact indicated on their academic records. Application forms are available in the Office of Admissions and Records and may be obtained by mail by writing that office.

A $10 graduation fee is established for all persons receiving degrees. The fee is payable at the time of application. The fee does not cover the rental fee for the cap and gown or the cost of the invitations. Both of these items are ordered through the University Book Store in the Student Center. Questions regarding the cap and gown and the invitations should be referred to the University Book Store.

In addition to completing the steps for application for graduation, students are responsible for determining that they are meeting all graduation requirements and have no outstanding financial obligation to the University. To assure that students are meeting the academic requirements, each academic unit provides a graduation check-up service through its academic advisement process, through which the satisfying of academic requirements can be verified. Even though the University does provide an academic check on graduating students, this is done primarily to be sure that it is graduating students who have met the requirements. The advising of individual students as to their progress is a service provided them and does not relieve students of their responsibility to make certain they are meeting the requirements. Students should check with their academic advisers as to the procedures they should follow in this matter as they approach graduation.

Attendance at commencement is not compulsory. If you do not plan to attend, notification must be sent to the Office of Admissions and Records. This information is needed for seating arrangements and for mailing purposes.

The University has a Graduation Appeals Committee whose function it is to hear student's petitions to be permitted to graduate even though they have not satisfied all University graduation requirements. The committee hears only those

cases involving University requirements for a baccalaureate degree. Appeal relative to a major or academic unit requirement is through the appropriate administrative official. Ordinarily, the Graduation Appeals Committee will give consideration to an appeal only if there is tangible evidence that the matter at issue is of an unusual nature and that it has resulted due to conditions beyond control of the student. Appeal is initiated through the Office of Admissions and Records.

University Recognition of High Scholastic Achievement

A Scholastic Honors Day convocation is held each spring to honor students exhibiting high scholastic achievement. Candidates for a bachelor's degree in May or August who have maintained a grade point average of 3.50 or higher for all of their work through the fall semester of their senior year receive special honor. All other students having a 3.50 average are also honored at the convocation. The 3.50 average is required for all work taken at Southern Illinois University at Carbondale. Transfer students must also have a 3.50 average including work taken at other institutions and Southern Illinois University at Carbondale. Except in the case of graduating students, students must be attending full time to be eligible.

A variety of professional, departmental, and fraternal honorary organizations offer recognition and membership based upon scholastic achievement. Election or selection to most honoraries is noted at the Scholastic Honors Day convocation.

Graduating students with scholastic averages of 3.90 or higher receive University highest honors; those with 3.75-3.89 averages receive University high honors; and those with 3.50-3.74 receive University honors. This is recorded on the students' academic record cards and on their diplomas. The averages are required for the work taken at Southern Illinois University at Carbondale. Transfer students must also have a 3.50 average including work taken at other institutions and Southern Illinois University at Carbondale.

Successful participants in all-campus honors programs which require maintenance of appropriate minimal scholastic standards, such as the University Honors Program receive recognition by notation on their academic records and on their diplomas. Honors courses, individual honors work, and honors curricula, all designed to serve students with high scholastic potential, are offered by departments in the School of Agriculture, the College of Human Resources, the College of Liberal Arts, and the College of Science. A departmental or unit honors program consists of no fewer than six nor more than fourteen semester hours in research or independent study which is counted toward the students' majors. Some honors programs require a comprehensive examination at the end of the junior year and again at the end of the senior year. Grades may be deferred at the end of the first semester, but not from one school year to the next.

At the end of each semester, a dean's list is prepared. The criteria for inclusion on the dean's list is established by each of the academic units. To be recognized as being on the dean's list, the student must have been in attendance full-time (12 semester hours or more) and must have earned the average for the semester which has been specified by the academic unit. If the student has met the criteria established, a notation will appear on the grade slip at the end of the semester.

Program Flexibility for the Student

Southern Illinois University at Carbondale offers students a wide variety of programs on all higher educational levels. Chapter 4 lists specialized programs

available on the associate and baccalaureate levels. In addition, the University gives constant attention to methods whereby it might better serve present day educational needs. Described below are opportunities provided students to either (1) earn credit through means other than the traditional classroom method or (2) develop programs better suited to individual student needs than are the already established programs described in Chapter 4. While greater flexibility is the goal, the University exercises appropriate supervision to ensure the flexibility is accompanied by educational soundness.

Credit by Means other than Classroom Attendance

Several methods are provided for students to earn credit by means other than the traditional classroom method. The methods currently available are described below.

HIGH SCHOOL ADVANCED PLACEMENT PROGRAM

Through the High School Advanced Placement Program high school students who are qualified through registration in an advanced placement course in their high schools or through other special educational experiences may apply for advanced placement and college credit through the Advanced Placement Program of the College Entrance Examination Board, 475 Riverside Drive, New York, New York 10027. To receive credit, students must earn a grade of 3, 4, or 5.

Ordinarily, the maximum credit granted through advanced placement examinations is fifteen hours. It is nonresident credit, does not carry a grade, and is not used in computing the students' averages. Credit granted at another accredited college or university under this plan is transferable to this University up to a maximum of fifteen hours. Students may appeal to academic deans to be granted more than fifteen hours.

Advanced classes which qualify for this purpose are offered in many high schools in specific subjects such as English composition, foreign languages, history, biology, chemistry, mathematics, and physics. A national examination is given in each subject with the examinations administered through the Educational Testing Service. The examinations are prepared by a national committee of high school and college teachers and are intended to measure the achievement of the student and determine at what point the student should begin college work in the subject.

The credit to be granted at Southern Illinois University at Carbondale is determined by the appropriate department. The following is a listing of courses for which a student may currently receive credit:

1. Physics: credit to be determined in consultation with the chairperson of the Department of Physics.
2. Chemistry: Chemistry 224 and 225 (seven semester hours) or Chemistry 222a,b (eight semester hours.)
3. Biology: GSA 115 (three semester hours)
4. American History: GSB 300 and 301 (six semester hours)
5. European History: History 200 (three semester hours)
6. English: GSD 101 (three semester hours)
7. Foreign languages: credit to be determined in consultation with the chairperson of the Department of Foreign Languages and Literatures.
8. Mathematics: Calculus AB: Mathematics 150 (four semester hours)
   Calculus BC: Mathematics 150 and 250 (eight semester hours).
9. Music: credit to be determined in consultation with the director of the School of Music.
10. Art: credit to be determined in consultation with the director of the School of Art.

COLLEGE LEVEL EXAMINATION PROGRAM

Through the General Examinations of the College Level Examination Program (CLEP), students may apply for credit which will substitute for General Studies courses. With a score of 520 or higher on the appropriate examination, it is possible for students to receive six semester hours of credit in each of the three fields of natural sciences, social sciences and history, and humanities.

A score of 580 or higher is required to pass the mathematics test. With this score students may earn four hours of credit which will fulfill the General Studies mathematics requirement.

With a score of 650 or higher on the CLEP English examination, students are permitted the opportunity of taking GSD 120, Freshman Honors Composition (three semester hours), instead of GSD 101 and GSD 117 (five semester hours). If a student scores 675 or above on the CLEP English proficiency examination, the student will receive five semester hours credit (three semester hours GSD 101 and two semester hours GSD 117). If a student scores 650 to 674, the student will receive (a) advanced placement in GSD 120, Freshman Honors Composition, and (b) five semester hours credit upon the satisfactory completion of GSD 120 with a grade of *C* or higher (three semester hours GSD 120 and two semester hours GSD 117).

If, prior to taking the CLEP examination, students have received a grade or audit in college level work in any discipline included in the CLEP exam or if they are currently enrolled in such a course, credit will not be awarded. The science exam includes botany, microbiology, physiology, zoology, chemistry, physics, earth science, geography, and all General Studies Area A courses. The social sciences and history exam includes western civilization, American history, Afro-Asian civilization, world history, political science, economics, anthropology, sociology, social psychology, social studies, and all General Studies Area B courses. The humanities exam includes literature — poetry, fiction, drama, nonfiction, creative writing; films and performing arts; art — art appreciation, art history, architecture (past and present); music — classical, modern or jazz; humanities — all general humanities courses; all General Studies Area C courses; philosophy — aesthetics, ethics, general survey. The mathematics test includes all college-level mathematics.

For further information, students should consult with their academic adviser.

CLEP examinations should be taken at one of the national testing centers and the results sent to the local CLEP coordinator. The results are then forwarded to the Office of Admissions and Records for evaluation.

PROFICIENCY EXAMINATIONS

Through its proficiency examination program the University recognizes the importance of providing encouragement for academically talented students. Such students are permitted to make application to demonstrate the mastery of certain courses through proficiency examinations. Application forms are available at the departmental offices.

The following general rules govern the proficiency examinations for undergraduate credit.

1. Students who believe they are qualified to take a proficiency examination should check with the department offering the course to determine their eligibility to do so; students scoring in the top ten percent of ACT are particularly encouraged to avail themselves of this opportunity.
2. Credit not to exceed thirty hours (fifteen hours toward an associate degree), including credit through the College Entrance Examination Board, Advanced Placement Program, and the College Level Examination Program may be earned through proficiency examinations. Credit will be nonresident. (A combined total of 40 hours may be earned through proficiency examinations and credit for work experience.)

3. Upon passing proficiency examinations students are granted course credit and receive *Pass* grade. Their records will show the name of the course, the hours of credit granted, and a notation "credit granted by proficiency examination." Students who fail a proficiency examination receive a *Fail* grade. This results in no penalty to the students. They will not receive credit and their records will show nothing regarding the proficiency examination. However, the proficiency examination grade report form will be filed in the students' folders for reference purposes.
4. Students may not take proficiency examinations for the same course more than one time. Neither may they take a proficiency examination in a course in which they have previously received a grade.
5. No credit granted by proficiency examinations will be recorded until the student has earned at least 12 hours of credit of *C* grade or above in residence at Southern Illinois University at Carbondale.

CREDIT FOR WORK EXPERIENCE

Southern Illinois University at Carbondale recognizes that there might well be a number of undergraduate programs for which work experience has a meaningful relationship. It, therefore, permits those undergraduate programs to grant credit for work experience that relates to students' areas of specialization. The credit granted is to apply to the major program and is awarded only upon approval by the major departments. Credit earned by work experience is limited to 30 hours and any combination of credit for proficiency examinations and credit for work experience is limited to 40 hours. Credit granted for work experience is considered nonresident credit when granted for work that is not part of a regular instructional course. Students should consult with their major departments to see whether they approve credit for work experience.

Three-Year Baccalaureate Degree Program

It is possible for students to complete the regular four-year baccalaureate degree program in three years by utilizing proficiency examinations. The equivalent of one year of credit (30 semester hours) may be earned by this method. Students who desire to follow the three-year program should make that fact known to their academic advisers at the earliest possible date so their eligibility can be determined. A combination of programs may be employed to accumulate these 30 hours as described above in the section on Credit by Means Other than Classroom Attendance.

Cooperative Education Program

The Cooperative Education Program, included in the Career Planning and Placement Center, is an optional educational pattern that provides an opportunity for students to alternate periods of academic study with periods of off-campus employment related to the student's academic majors or career goals. Periods should be of sufficient duration to provide meaningful classroom and off-campus experiences. Cooperative education provides students an opportunity to earn funds that may be needed to support and complete their education, while it gives them off-campus experiences that are closely integrated with and that enrich their total education. The University assumes the responsibility of placing students in work experiences that will meet these goals. Co-op, the experience that pays, is available to students in essentially all academic areas and without geographical limitations.

University Honors Program

The University Honors Program is designed to enable academically talented undergraduate students to undertake specially designed and challenging classes; to fulfill University and college requirements by participating in independent studies, colloquia and advanced courses; and to elect interdisciplinary, extra-

curricular, and cocurricular activities sponsored and administered especially for academically qualified students. Some special scholarships and internships are available to University Scholars.

Honors sponsors and University Honors staff assist qualified students in designing individualized programs tailored to needs, interests, and talents.

Membership in the University Honors Program is granted to entering freshman who apply for membership and who have achieved a superior scholastic record in high school, upper ten percent of graduating class and an ACT composite score in the 90th percentile. The dean of General Academic Programs may also admit a freshman to membership in the University Honors Program on the basis of other factors, including high school experiences, letters of recommendation, or other evidence of exceptional promise. Membership may be granted to other than entering freshmen who apply for membership and who have a superior academic record such as a cumulative grade point average in the upper ten percent for students at a comparable point in their academic studies.

Members of the University Honors Program are designated as University Scholars. Retention in the University Honors Program depends upon maintaining a 3.25 cumulative grade point average in all coursework and no failing grades in honors courses.

University Scholars should enroll in an average of one honors experience per semester and maintain normal progress toward a degree. Normal progress is defined as 24 semester hours per academic year. A minimum of 15 hours of honors work is required as a University Scholar. A University Scholar not engaged in a departmental honors program must complete an honors thesis during the senior year. Substitutions for this requirement may be arranged for a student in a major which does not allow curricular flexibility.

University Scholars may complete the General Studies requirements of the University by enrolling in advanced courses in departments which offer General Studies classes. With the close cooperation of the honors sponsor, individual options may be exercised which fulfill the spirit of General Studies requirements but, to challenge the University Scholar, may depart from standard University requirements. University Scholars are permitted to waive some University requirements when they have CLEP scores at an appropriate level.

Baccalaureate degrees for University Honors Program participants are awarded through the regular degree granting units.

Inquiries about the program should be addressed to the dean, General Academic Programs.

Technical Careers Degree Program

The University provides an opportunity to continue educational pursuits toward a baccalaureate degree for students possessing an occupational, technical, or other similarly connotated educational background. The School of Technical Careers offers a Bachelor of Science degree program in technical careers for such students. Individually designed programs are developed to meet the individual needs of the students. Programs do not duplicate baccalaureate programs already offered by other academic units.

The regular University baccalaureate admission and other academic requirements and regulations are followed in the technical careers program. Persons interested in further information about this program should contact the chairman, division of baccalaureate studies, School of Technical Careers, Southern Illinois University at Carbondale, Carbondale, Illinois 62901. (See also School of Technical Careers in Chapter 3.)

University Studies Degree Program

The University Studies degree program permits students an additional option toward the baccalaureate degree. The program is intended for the student seek-

ing a broad, general education and who does not wish to specialize on the undergraduate level. Students may work toward either a Bachelor of Arts or Bachelor of Science degree in University Studies.

Students interested in the University Studies program should consult with the dean of General Academic Programs for more information. See the description in Chapter 4.

Special Major Program

Individual students with academic needs not met in any of the existing majors within the University may arrange a program of courses more suited to their special requirements. See the description of the Special Major in Chapter 4.

Capstone Program

The Capstone Program has been developed for students who completed a vocational or technical program and then change their educational goals to include the pursuit of a baccalaureate degree. The program attempts to plan an individualized course of study for each student which will allow completion of a bachelor's degree with two additional years of credit beyond an associate degree. Chapter 3 includes information about provisions of the Capstone Program, admission requirements, and those academic units and majors which participate in the Capstone Program.

Opportunities for Study Abroad

There are five alternatives available to Southern Illinois University at Carbondale students for studying abroad.

1. A student may enroll in a Southern Illinois University study/travel program. These programs include academic courses where regular University credit is awarded to students every summer with varied opportunities available. Announcements concerning the coming summer programs are usually available in the Division of Continuing Education about the first of each year.
2. A student may study abroad through an experiment in international living/SIU cooperative program. The Experiment in International Living is an accredited educational institution located in Brattleboro, Vermont.
3. A student may travel and study abroad on an independent basis. Prior arrangements can be made through departments to enroll in study abroad courses available in selected departments or in the course, University 388.
4. A student may enroll in a study/travel program conducted by another United States institution and transfer the credit to this institution. Information concerning programs offered by United States institutions can be obtained from the coordinator for international travel and study in the Division of Continuing Education.
5. A student may enroll in either a foreign institution or an independent location of a foreign institution. The student should check with the Office of Admissions and Records before registering since many foreign institutions are not accredited.

Determination of Residency Status

The following is a direct quotation from the Board of Trustees' "Regulations Governing the Determination of Residency Status for Admission and Assessment of Student Tuition."

For the purpose of these regulations an *adult* is considered to be a student eighteen years of age or over; a *minor* student is a student under eighteen years of age. The words *he* or *his* also apply to a female unless otherwise stated or clearly indicated. The term *the State* means the State of Illinois. Except for those excep-

tions clearly indicated in these regulations, in all cases where records establish that the person does not meet the requirements for Resident status as defined in these regulations the nonresident status shall be assigned.

Residency Determination

Evidence for determination of residence status of each applicant for admission to the University shall be submitted to the Director of Admissions at the time of application for admission. A student may be reclassified at any time by the University upon the basis of additional or changed information. However, if the University has erroneously classified the student as a Resident, the change in tuition shall be applicable beginning with the term following the reclassification; if the University has erroneously classified the student as a nonresident, the change in tuition shall be applicable to the term on which the reclassification occurs, provided the student has filed a written request for review in accordance with these regulations. If the University has classified a student as a Resident based on false or falsified documents, the reclassification to nonresident status shall be retroactive to the first term during which residency status was based on the false or falsified documents.

Adult Student

An adult, to be considered a Resident, must have been a bona fide resident of the State for a period of at least three consecutive months immediately preceding the beginning of any term for which he registers at the University, and must continue to maintain a bona fide residency in the State, except that an adult student whose parents (or one of them if only one parent is living or the parents are separated or divorced) have established and are maintaining a bona fide residence in the State and who resides with them (or the one residing in the State) or elsewhere in the State will be regarded as a Resident students.

Minor Student

The residence of a minor shall be considered to be, and to change with and follow:

a. That of his parents, if they are living together, or living parent, if one is dead; or

b. If the parents are separated or divorced, that of the parent to whom the custody of the person has been awarded by court decree or order, or, in the absence of a court decree or order, that of the parent with which the person has continuously resided for a period of at least three consecutive months immediately preceding his registration at the University; or

c. That of the adoptive parents, if the person has been legally adopted and, in the event the adoptive parents become divorced or separated, that of the adoptive parent whose residence would govern under the foregoing rules if that parent had been a natural parent; or

d. That of the legally appointed guardian of the person; or

e. That of the *natural* guardian, such as a grandparent, adult brother or adult sister, adult uncle or aunt, or other adult relative with whom the person has resided and by whom he has been supported for a period of at least three consecutive months immediately preceding his registration at the University for any term, if the person's parents are dead or have abandoned him and if no legal guardian of the person has been appointed and qualified.

Parent or Guardian

No parent or legal or natural guardian will be considered a resident of the State unless he (a) maintains a bona fide and permanent place of abode within the State, and (b) lives, except when temporarily absent from the State with no intention of changing his legal residence to some other State or country, within the State.

Emancipated Minor

If a minor has been emancipated, is completely self-supporting, and actually resides in the State, he shall be considered to be a Resident even though his parents or guardian may reside outside the State. An emancipated minor who is completely self-supporting shall be considered to actually reside in the State of Illinois if he has maintained a dwelling place within the state uninterruptedly for a period of at least three consecutive months immediately preceding the beginning of any term for which he registers at the University. Marriage or active military service shall be regarded as effecting the emancipation of minors, whether male or female, for the purposes of this regulation. An emancipated minor whose parents (or one of them if only one parent is living or the parents are separated or divorced) have established and are maintaining a bona fide residence in the State and who resides with them (or the one residing in the State) or elsewhere in the State will be regarded as a Resident student.

Married Student

A nonresident student, whether male or female, or a minor or adult, or a citizen or noncitizen of the United States, who is married to a resident of the State, may be classified as a Resident so long as he continues to reside in the State; however, a spouse through which a student claims residency must demonstrate his or her own residency in compliance with the requirements applicable to students seeking Resident status.

Persons Without United States Citizenship

A person who is not a citizen of the United States of America, to be considered a Resident, must have permanent residence status with the United States Immigration and Naturalization Service and must also meet and comply with all the other applicable requirements of these regulations to establish Resident status.

Armed Forces Personnel

A person who is actively serving in one of the Armed Forces of the United States and who is stationed and present in the State in connection with that service and submits evidence of such service and station, shall be treated as a Resident as long as the person remains stationed and present in Illinois. If the spouse or dependent children of such member of the Armed Forces also live in the State, similar treatment shall be granted to them.

A person who is actively serving in one of the Armed Forces of the United States and who is stationed outside the State may be considered a Resident only if he was a resident of the State at the time he entered military service.

A person who is separated from active military service will be considered a Resident of Illinois immediately upon separation providing he: (a) was a resident of the State at the time he entered military service, (b) became treated as a Resident while in the military by attending school at Southern Illinois University while stationed within the State, or (c) has resided within the State for a period of three months after his separation.

State and Federal Penitentiary

A person who is incarcerated in a State or Federal place of detention within the State of Illinois will be treated as a Resident for tuition assessment purposes as long as he remains in that place of detention. If bona fide residence is established in Illinois upon release from detention, the duration of residence shall be deemed to include the prior period of detention.

Minor Children of Parents Transferred Outside the United States

The minor children of persons who have resided in the State for at least three consecutive months immediately prior to a transfer by their employers to some loca-

tion outside the United States shall be considered Residents. However, this shall apply only when the minor children of such parents enroll in the University within five years from the time their parents are transferred by their employer to some location outside the United States.

Dependents of University Employees

The spouses and dependent children of all staff members (academic, administrative, non-academic) on appointment with the University shall be considered as Resident students for purposes of tuition assessment.

Definition of Terminology

To the extent that the terms *bona fide residence, independent, dependent,* and *emancipation* are not defined in these regulations, definitions shall be determined by according due consideration to all of the facts pertinent and material to the question and to the applicable laws and court decisions of the State of Illinois.

A bona fide residence is a domicile of an individual which is his true, fixed, and permanent home and place to which, whenever he is absent, he has the intention of returning. Criteria to determine this intention include but are not limited to year around residence, voter registration, place of filing tax returns (home state indicated on federal tax return for purposes of revenue sharing), property ownership, driver's license, car registration, vacations, and employment.

Procedure for Review of Residency Status or Tuition Assessment

A student who takes exception to the residency status assigned or tuition assessed shall pay the tuition assessed but may file a claim in writing to the appropriate official for a reconsideration of residency status and an adjustment of the tuition assessed. The written claim must be filed within 30 school days from the date of assessment of tuition or the date designated in the official University calendar as that upon which instruction begins for the academic period for which the tuition is payable, whichever is later, or the student loses all rights to a change of status and adjustment of the tuition assessed for the term in question. If the student is dissatisfied with the ruling in response to the written claim made within said period, he may appeal the ruling to the Legal Counsel by filing with the appropriate official within twenty days of the notice of the ruling a written request.

Policy on the Release of Student Information and Access to Student Records at Southern Illinois University at Carbondale

I. Purpose

Southern Illinois University at Carbondale, hereinafter referred to as the University, maintains individual records and information about students for the purpose of providing educational, vocational, and personal services to the student. For the purpose of complying with federal regulations regarding the maintenance of confidentiality of student educational records, as required by the Family Educational Rights and Privacy Act of 1974, the following policy has been enacted.

II. Definitions

A. "Student" is defined as a person who is or has been enrolled at Southern Illinois University in a course of study either on campus or off campus. Solely for purpose of this policy, any student attending Southern Illinois University will be considered to be an adult and to have sole control over the release of his/her information except as pro-

vided in this policy. The term "enrolled" is defined as having registered and paid fees into a course of study.

B. "Education records" means those records which are directly related to a student, and are maintained by Southern Illinois University or any subunit or by any party acting for Southern Illinois University. The term does *not* include
   1. personal records of instructional, supervisory, and administrative personnel which are not revealed to other individuals,
   2. records of a law enforcement unit of an educational institution which are maintained apart from the education records, maintained solely for law enforcement purposes, and are not disclosed to individuals other than law enforcement officials of the same jurisdiction.
      For purposes of this policy, the Southern Illinois University Security Office will be treated as an outside agency and will therefore be required to comply with all regulations relating to the disclosure of information from students' educational records, as set forth in the policy.
   3. employment records, so long as they are maintained separately from any educational record.
   4. records of a physician, psychologist, or other recognized professional or paraprofessional acting in his or her professional capacity which are used only in connection with treatment and are not disclosed to individuals other than those providing the treatment; *Provided,* that these records can be personally reviewed by a physician or other appropriate professional of the student's choice.
   5. records which contain only information relating to a person after that person was no longer a student at Southern Illinois University, such as alumni files.

C. "Student Information" means any information contained in an educational record as defined in II. B.

D. "Personally identifiable information" includes:
   1. The name of a student, the student's parent, student's spouse, or other family member.
   2. The address of the student.
   3. A personal identifier such as the student's social security number or student number.
   4. A list of personal characteristics which would make the student's identity easily traceable.
   5. Other information that would make the student's identity easily traceable.

E. "Directory information" includes:
   1. Student name.
   2. Student local address and telephone number.
   3. Student home address and telephone number.
   4. Current term hours carried.
   5. Classification (freshman, sophomore, etc.)
   6. Academic unit.
   7. Major.
   8. Date of attendance.
   9. Degrees and honors earned and dates.
   10. The most previous educational agency or institution attended prior to enrollment at Southern Illinois University.
   11. Participation in officially recognized activity or sport.
   12. Weight, height, and pictures of members of athletic teams.

13. Date of birth.
14. Picture.

III. Basic Policy Regarding Disclosure of Information from Educational Records

A. Disclosure not requiring prior consent

1. The appropriate recordkeeping office shall obtain the written consent of the student before disclosing personally identifiable information from the records of a student, except in the case of directory information or disclosures to:
   a. The student himself/herself.
   b. University personnel who have a legitimate educational need to permit their functioning or research. The sufficiency of the need will be determined by the head of the unit from which the records are sought.

      Student information supplied to any Southern Illinois University personnel or unit is provided on the basis that it is needed to permit their necessary functioning. All members of the faculty, administration, and clerical staff must respect confidential information about students which they require in the course of their work. They are bound by the conditions outlined in this policy statement relative to the release of student information. All institutional personnel should be alert to refer promptly to the appropriate office requests for transcripts, certifications, or other information which that office typically provides. They should restrict their responses to acknowledging, when appropriate, the receipt of requests for student information germane to their sphere of responsibility.
   c. Officials of other schools or school systems in which the student seeks or intends to enroll, if there is a legitimate need. The sufficiency of the need will be determined by the head of the unit from which the records are sought. A copy of any information sent will be provided to the student upon request.
   d. Faculty or students conducting student characteristic research providing the research project has written approval of the academic unit executive officer sponsoring the research and providing guarantees are made that no personally identifiable information will be published or released.
   e. Certain state and federal representatives specified by law for the sole purpose of evaluation and auditing of governmentally funded programs in which the University participates, with the guarantee that the identity of the students will be protected.
   f. State and local officials as directed by the State Statute adopted prior to November 19, 1974, as approved by University Legal Counsel.
   g. Organizations conducting studies for, or on behalf of, state or federal educational agencies or institutions for the purpose of developing, validating, or administering predictive tests, administering student aid programs, and improving instruction, with the guarantee that the identity of the student shall be protected.
   h. In connection with financial aid for which the student has applied or received.
   i. Accrediting organizations to carry out their accrediting function, with the guarantee that the identity of the student shall be protected.

j. Appropriate persons in connection with an emergency, if knowledge of such information is necessary to protect the health or safety of a student or other persons.
k. Comply with a judicial order or subpoena, but the University should make a reasonable effort to notify the student first. The sufficiency of the order or subpoena will be determined by University Legal Counsel and that office shall send the required notice to the student.

B. Disclosure Requiring Prior Consent
1. Except as listed in A above, all requests for student information other than directory information must be accompanied by a written consent of the student.
2. The written consent required by this section must be signed and dated by the student giving the consent and shall include (a) a specification of the records to be disclosed, and (b) the party or parties to whom the disclosure may be made.
3. When the disclosure is made pursuant to this section, the appropriate recordkeeping office shall, upon request, provide a copy of the records which are disclosed to the student.
4. Student information will not be released to parents of students without the student's permission.

C. Disclosure of Directory Information

Directory information pertaining to students may be released by the University at any time provided that it publish the definition at least once each academic year in the campus student newspaper or other designated publication with wide circulation, and the individual student is given a reasonable period of time to inform the University in writing, through the Office of Admissions and Records, that he/she does not wish such information concerning himself/herself to be released without his/her prior consent. The Office of Admissions and Records will be responsible for identifying or deleting all information which the student desires not to be released outside the University and for informing all University recipients of that information that such information is not to be released. The student must request deletion of information each year.

The procedural requirements of this section do not apply to the disclosure of directory information from the education records of an individual who is no longer in attendance at the University. Thus, the University (or appropriate recordkeeping office) is not required to give public notice of the above to former students.

All recipients of student information will be bound by this policy. Lists of student information are never knowingly provided to any requesting party for a commercial or political purpose. If a student directory is published, it shall be equally available to all.

D. Records of Disclosure Made

Records of disclosure are not required to be kept in the record of a student when the disclosure is initiated by the student himself/herself.

The University may disclose personally identifiable information from the education records of a student only on the condition that the party to whom the disclosure is made will not further disclose the information without the student's written consent, except in the case of disclosure of directory information.

The University shall, except for the disclosure of directory information, inform the party to whom disclosure is made of the obligation to receive the student's consent before further disclosure to other parties.

E. Waiver of Right to Inspect and Review Education Records
   1. The student may waive his/her right to inspect and review education records. The waiver, in order to be valid, must be in writing and signed by the student. The University (or each appropriate recordkeeping office) may not require a waiver of rights but it may request such a waiver.
   2. If a student has waived his/her right to see confidential letters of recommendation placed in his/her record after January 1, 1975, the waiver will be effective only if: (a) the applicant or student is, upon request, notified of the names of all individuals providing the letters or statements; (b) the letters or statements are used only for the purpose for which they were originally intended, and (c) such waiver is not required by the University as a condition of admission to or receipt of any other service or benefit from the University.
   3. A waiver may be revoked, but the revocation must be in writing and signed by the student. Revocation of waiver will affect only documents received after its execution.

IV. Identification and Description of Student Information

A. Academic Records

The Office of Admissions and Records retains the official academic record of a student. It is a cumulative history of a student's admission, registration, and academic participation and performance. Certain biographic and demographic information is also kept for identification for enrollment and research-related purposes. For information concerning these records contact the Director of Admissions and Records.

Academic records may also be maintained in academic units, departments, and divisions. For information concerning these records contact the head of the academic unit, department, or division in question. The Office of Institutional Research also maintains some academic records.

B. Financial Records

Offices within the Business area maintain certain financial records which relate to the payment and accounting of tuition, fees, and other charges. They also maintain records which record student loans and grants. For information concerning these records, contact the Bursar's Office.

For billing purposes, the Office of Admissions and Records maintains a record of financial aid received and tuition and fees paid. For information concerning these records, contact the director of Admissions and Records.

The Office of Student Work and Financial Assistance maintains records of students receiving loans, grants, and aid along with scholarship information and some academic information. It also maintains records pertinent to student employment including the family financial statement. For information concerning these records, contact the Director of Student Work and Financial Assistance.

The Housing Office maintains records of housing accounts. For information concerning these records, contact the Director of Housing.

C. Medical/Counseling/Clinical Center Records.

The University Health Service maintains medical records of students who have required medical assistances through the student health program. Only information pertinent to the health of the individual is contained therein. For information concerning these records, contact either the administrative director or the medical director of Student Health.

The University Counseling Center maintains records pertinent to services rendered by that office. For information concerning these records, contact the director of Counseling Center.

The University Clinical Center maintains records pertinent to services rendered by that office. For information concerning these records, contact the director of the Clinical Center.

D. Disciplinary Records

The Office of Student Affairs maintains records of disciplinary action which has been taken against a student with documentation pertaining thereto. That office also maintains only the academic information necessary to permit its functioning. For information concerning these records, contact the dean of Student Life.

E. Placement Records

The Office of Career Planning and Placement creates a record for those persons who wish to avail themselves of its services, with student's voluntary participation. This information is distributed to potential employees. It consists of self-completed resumes and various personal references. For information concerning these records, contact the director of Career Planning and Placement.

V. Access to Records

A. Right to Inspect or Review Educational Records

1. The student has the right to physically review his records in the presence of a designated University representative.
2. Requests for review may be required to be submitted in writing to the appropriate office.
3. That office shall comply with the request within a reasonable time, but in any case, compliance shall be no more than thirty (30) days after the receipt of the request.
4. Where necessary, interpretation of the record shall be provided by qualified University personnel.
5. Original records cannot be removed from University premises. A copy will be provided if requested, but only if not providing a copy would preclude review of the educational records by the student.
6. Copies of transcripts from other educational institutions will be provided only if the original source of those transcripts is no longer available or going to the original source would cause undue hardship as determined by this University.

B. Limitations on Right to Inspect or Review

1. The student may not inspect the following records:
   a. Financial records and statements of their parents.
   b. Confidential letters or materials placed in records before January 1, 1975 so long as they were solicited with an understanding of confidentiality and are used only for the purpose for which they were written.
   c. Confidential letters of recommendation and confidential statements of recommendation placed in the education records of the student after January 1, 1975, are subject to the student's right to inspect and review unless the student has signed a written waiver.
2. Reports that involve two or more persons may be censored to protect the indentity of the other person(s).

C. Administrative Hold on University Records

On occasion it is necessary for a University to place an administrative hold on a student's ability to request a transcript, to register for a

subsequent term, to reenter the University after a period of attendance interruption, or to be officially graduated.

In cases where an administrative hold has been placed on a student's record, the student may view such records but will not be able to obtain a copy of said record until the administrative hold is removed through the appropriate University channels.

VI. Challenging Contents of a Student's Educational Record

A. Purpose

A student has the right to challenge the content of a record on the ground that he/she believes it is inaccurate, misleading, or otherwise in violation of his/her privacy or other rights and to have inserted in the record his/her written explanation of its contents. Academic grade review procedures are covered in the University Catalog and/or such particular academic unit, department or division and not by this policy.

B. Procedure

To initiate such a challenge, the student shall, within sixty (60) days after he/she has inspected and reviewed the record in question for the first time, file with the University office responsible for maintaining such record a written request for correction, on a form specified by the University. Within thirty (30) days following receipt of such request, the head of such office, or his/her representative, shall review the record in question with the student and either order the correction or deletion of such alleged inaccurate, misleading, or otherwise inappropriate data as specified in the request or notify the student of the right to a hearing at which the student and other persons directly involved in the establishment of the record shall have an opportunity to present evidence to support or refute the contention that the data specified in the request are inaccurate, misleading, or otherwise inappropriate.

C. Hearing

The student shall be given written notice sent to his/her last known address of the time and place of such hearing not less than ten (10) days in advance. The hearing will be conducted by a University representative who does not have a direct interest in the outcome. The student might well challenge the hearing officer. Any disagreement regarding the hearing officer will be resolved by the appropriate Vice President.

The student shall have the right to attend the hearing, to be advised by an individual of his/her choice at his/her own expense, including an attorney, and to call witnesses in his/her behalf. The student shall be notified in writing of the decision within ten (10) days following the hearing or within five (5) days of a decision without a hearing. Such decision is final. The decision reached shall be based solely upon the evidence presented at the hearing and shall include a summary of the evidence and reasons for the decision.

(Note: A hearing may not be requested by a student to contest the assignment of a grade; however, a hearing may be requested to contest whether or not the assigned grade was recorded accurately in the education records of the student.)

VII. Destruction of Records

A. The University may destroy education records when they are no longer necessary, with the following limitations:

1. Education records may not be destroyed if there is an outstanding request to inspect and review them.

2. Explanations placed in the record by the student and the record of disclosure of information must be maintained as long as the education record to which it pertains is maintained.

VIII. Right to File Complaints

A. If the student thinks his or her rights have been violated, he or she should first file a complaint with the head of the office which maintains the records in question.

B. After exhausting all the internal remedies available within the University, if the student still thinks his or her rights have been violated, written complaints can be filed with:

The Family Educational Rights and Privacy Act Office
Department of Health, Education, and Welfare
330 Independence Avenue S.W.
Washington, D.C. 20201

The office shall notify the complainant and the University of the receipt of the complaint and an investigation will follow.

Issuance of Transcripts

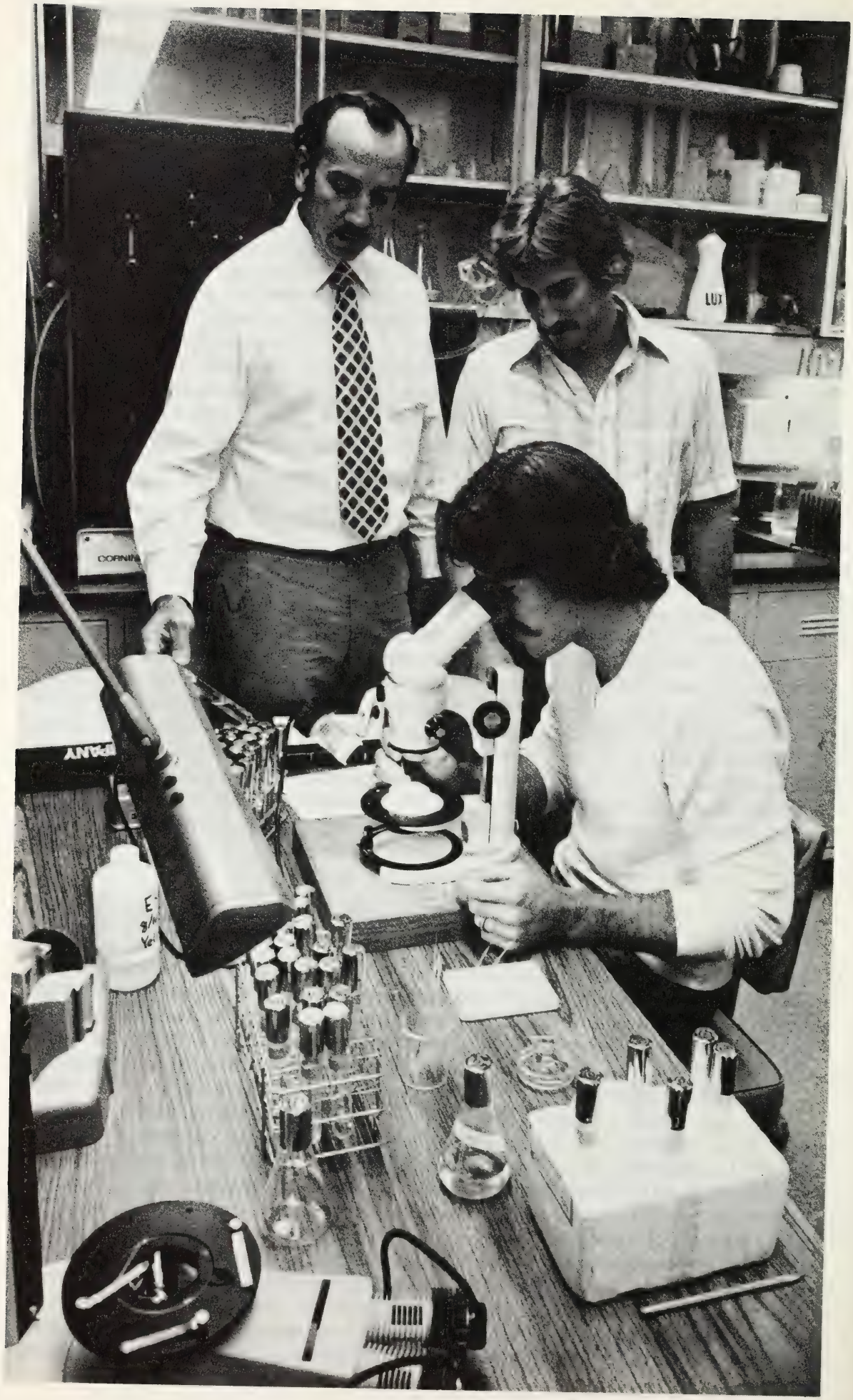
A transcript of the student's official educational record is issued by the Office of Admissions and Records under the following conditions: A transcript is sent, issued, or released only upon a student's request or with the student's explicit permission, except that such permission is not required when University faculty and administrative personnel or other educational institutions request transcripts for official purposes. In addition, requests will be honored from a philanthropic organization financially supporting a student and from a recognized research organization conducting educational research provided the confidential character of the transcript is protected. A transcript will be issued directly to a student upon request. The transcript will have the statement, Issued to the Student, stamped on its face. Transcripts will be sent without charge to recipients other than the student as requested by the student. A transcript will not be sent, issued, or released if a student owes money to the University.

Student Conduct Code

The University, through the Student Conduct Code, provides protections which promote and strengthen the learning process. The code is designed to create and maintain an environment conducive to the educational mission of the University. As an educational tool, the code identifies rights and responsibilities of students. Sanctions, when used, are designed for educational growth rather than punitive effect. The administrative responsibility for implementing, enforcing, and evaluating the code is assigned to the Student Relations Office.

Each student is expected to know the code which is published in the *Daily Egyptian* and available in brochure form in the Student Relations Office. All charges are filed by the Student Relations Office on behalf of the reporting party or victim and charges may be dropped only by the Student Relations Office. All students charged with a violation of the code have a choice between a judicial board hearing and an administrative hearing. This choice exists at all levels of adjudication. Initial jurisdiction hearings are held at the residence hall level on all incidents occurring within the living area, regardless of where the student lives. Initial jurisdiction hearings are held at the campus level for all other incidents. An appeal procedure is available to handle requests for appellate consideration.

Special details about the code and judicial procedures are made available to charged students. Students may visit the Student Relations Office, Building T-40, for additional information.


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3 Academic Programs

Degrees Offered

Southern Illinois University at Carbondale grants the following degrees:

ASSOCIATE
Associate in Applied Science
Associate in Art

BACCALAUREATE
Bachelor of Arts
Bachelor of Music
Bachelor of Music Education
Bachelor of Science

ADVANCED
Master of Accountancy
Master of Arts
Master of Business Administration
Master of Fine Arts
Master of Music
Master of Music Education
Master of Public Affairs
Master of Science
Master of Science in Education
Specialist Degree
Doctor of Business Administration
Doctor of Philosophy
Doctor of Rehabilitation

In addition to the above degrees, Southern Illinois University at Carbondale offers undergraduate courses in preprofessional areas.

The School of Law and the School of Medicine offer professional degrees. Information about the School of Law may be obtained by writing the dean, School of Law, Southern Illinois University at Carbondale, Carbondale, Illinois 62901. Information about the School of Medicine may be obtained by writing the dean, Southern Illinois University School of Medicine, P.O. Box 3296, Springfield, Illinois 62708.

For information concerning academic programs on the advanced degree level, refer to the Graduate Catalog or write the dean, Graduate School, Southern Illinois University at Carbondale, Carbondale, Illinois 62901.

Degree Requirements

Associate Degree

Each candidate for an associate degree must complete a minimum of 60 hours of credit in approved courses. Each student must maintain a *C* average. In addition to the technical courses each program requires certain General Studies courses to be taken. The degree granting unit for the associate degree is the School of Technical Careers.

Baccalaureate Degree

Each candidate for a bachelor's degree must complete the requirements listed below.

Hour Requirements. Each student must have earned a minimum of 120 semester hours of credit, although some programs may require more. Of the 120 hours, at least 60 must be earned at a senior-level institution. All credit granted may be applied toward the 60-hour requirement unless the credit has specifically been designated as being from a community college. Credit for work experience, CLEP, military credit, and proficiency examination credit awarded by an accredited senior-level institution are counted toward the 60-hour requirement.

Residence Requirements. Each student must complete the residence requirement by taking the last year, which is defined as 30 semester hours, or by having three years of credit, which is defined as 90 semester hours at Southern Illinois University at Carbondale. Only credit for those courses for which the student has registered and for which a satisfactory grade has been recorded at Southern Illinois University at Carbondale may be applied toward the residence requirement hours.

Average Requirements. Each student must have a *C* average for all work taken at Southern Illinois University at Carbondale and a *C* average for all major work taken at Southern Illinois University at Carbondale.

The University has adopted a policy for students whose only graduation problem concerns the *C* average for all work taken at Southern Illinois University at Carbondale. Such students may ask that the average be computed by one of the following methods: (1) by excluding from calculation of the grade point average a maximum of ten semester hours of *D* or *E* grade earned outside the major which was taken prior to the last 60 semester hours of completed work at Southern Illinois University at Carbondale or, (2) by earning a grade point average of 2.10 or higher for the last 60 semester hours of work completed at Southern Illinois University at Carbondale. The student will be graduated if the average meets either of the two alternatives. It should be noted that the two alternatives are offered as a means of computing the grade point average for graduation only and may not be used for any other purpose.

Course Requirements. Each student must meet the University requirements and the requirements of the academic unit, the major, and the minor, if required. The General Studies requirements which are explained later in this chapter total 45 semester hours of credit although there are methods available to reduce the number for certain students. The requirements of each academic unit are also listed in this chapter, while the requirements for the specific major and minor programs are explained in Chapter 4.

Second Bachelor's Degree

A student may earn a second bachelor's degree upon completion of a minimum of 30 hours, making a total of 150 hours minimum, provided the student fulfills the requirements of the department and college or school for the second bachelor's degree. Students pursuing a second baccalaureate degree must meet the General Studies requirements of 45 semester hours if the department or school or college so requires. Students may, however, complete a second bachelor's degree under the Capstone Program if the department offers this option for the first baccalaureate degree. If a student's first bachelor's degree is from another university,

30 hours in residence is required to fulfill the requirements for the second bachelor's degree. If the first bachelor's degree was earned at Southern Illinois University at Carbondale, a minimum of 10 semester hours of the 30 required must be taken in residence at the University.

Preprofessional Programs

Preprofessional students may, subject to certain conditions, obtain a bachelor's degree after three years' work (90 semester hours) at Southern Illinois University at Carbondale and one or more year's work in a professional school. During their three years of residence at Southern Illinois University at Carbondale, they need to have completed all requirements other than elective hours for the bachelor's degree which they are seeking.

In some cases the completion of major requirements is possible by their taking certain courses at the professional school, but this is permitted only upon the prior approval of the appropriate divisional head. Also, there needs to be completion of at least one year of professional school with acceptable grades in an approved medical school, an approved dental school, an approved veterinary school, an approved law school, an accredited physical therapy or medical technology school, a hospital plan approved by the University or an accredited school of osteopathy. In all cases, all University graduation requirements must be met. It is advisable for a student interested in this program to make the decision to seek a bachelor's degree before entering the professional school so that any questions may be clarified at an early date.

The 3/2 program of the College of Business and Administration is available to qualified transfer students and students majoring in areas other than business. The program permits a student to devote a part or all of the fourth year of study to fulfilling requirements for the Master of Business Administration degree. For details, contact the associate dean for graduate studies in business administration.

General Studies Requirements

The General Studies requirements are the general educational requirements for all the baccalaureate programs of the University. The General Studies curriculum is divided into five major areas; the number of semester hours required in each area is listed below.

Area A Our Physical Environment and Biological Inheritance	9
Area B Our Social Inheritance and Social Responsibilities	9
Area C Our Insights and Appreciations	9
Additional coursework from Areas A, B, or C	3
Area D Organization and Communication of Ideas	11
Area E Human Health and Well Being	4
Total	45

Students must complete a total of 30 semester hours in Areas A, B, and C. Within each Area they must complete a minimum of 9 semester hours, and they must include coursework from at least 3 different disciplines in each Area. The remaining 3 semester hours may include coursework from any one of Areas A, B, or C, or from any combination of these three Areas.

Within Area D, the following are required: 5 semester hours of English composition; 4 semester hours of mathematics; and 2 semester hours of speech or other oral communications as offered in Area D. Some programs and upper division academic units have specific requirements for demonstration of competence in English composition. A student may determine which programs or units have this requirement by referring to program requirements listed in Chapter 4.

In Area E the courses taken must include more than one activity or subject. Prospective teachers should also check the section of this chapter titled Teacher Education Program.

MEETING GENERAL STUDIES REQUIREMENTS

These requirements may be met by any of the following, subject to the rules and limitations appropriate to each means.

1. Completion of appropriate General Studies courses (listed at the beginning of the next chapter) with a passing grade;
2. Proficiency credit by examination for General Studies courses or approved substitute courses.
3. Proficiency credit via General Examinations of the College Level Examination Program or CEEB Advanced Placement Program (See Program Flexibility in Chapter 2);
4. Transfer credit for courses evaluated as equivalent to General Studies courses or approved substitute courses; and
5. Completion of departmental courses listed as substitutions for General Studies courses. (See List of Approved Substitutions below.)

General Studies courses are offered at the 100, 200, and 300 levels. Few of these courses have specific prerequisites, and a student may decide when to enter a given level. Academic advisers can provide the student with appropriate information about individual General Studies courses.

Beginning students are not restricted to enrolling in only General Studies courses; the student who has selected a major is assisted in determining the proper courses to take by consulting curriculum guides obtained from an academic adviser.

List of Approved Substitutions. The department courses which have been approved as substitutions for General Studies courses are listed below. In no case does the departmental course substitute for more credit hours than the credit hours allowed in the comparable General Studies course.

GENERAL STUDIES COURSE	APPROVED SUBSTITUTES
GSA 101-3	One of: Physics 203, 205, 253, 255, or 3 semester hours of technical physics. (The substitution of Physics 253 or 255 is limited to one semester hour.)
GSA 106-3 and 107-1	One of: Chemistry 115, 140, 222, 224, 225, or 4 semester hours of technical chemistry
GSA 110-3	Geology 220
GSA 115-3	One of: Biology 306, 308, 309; Botany 200; Zoology 118
GSA 202-3	Physics 203b or 205b
GSA 208-1 and 209-3	Physiology 210, Animal Industries 331, or Military credit for physiology
GSA 240-3	Biology 307
GSA 314-2	Biology 305
GSA 330-3	Military credit for meteorology
GSA unassigned-1 to 12	One to 12 semester hours from University Honors 251a and/or 351a
GSB 103-3	Geography 300
GSB 211-3	One of: Agribusiness Economics 204; Economics 214, 215
GSB unassigned-1 to 12	One to 12 semester hours from University Honors 251b and/or 351b
GSC 100-3	Music 101, 102, or 2 hours of 013, 014, 017, 020, 021, 022
GSC 101-3	Art 100
GSC 204-3	Art 207
GSC 206-3	Music 105a
GSC 293-3	English 209

GSC Foreign Language	Foreign Language

(*Note:* A student may substitute on an hour-for-hour basis to a maximum of four hours, provided the student has taken GSC courses totaling five hours in two other disciplines. Any additional hours of foreign language may be counted toward the three hours of additional coursework required in areas A/B/C).

GSC unassigned-1 to 12	One to 12 semester hours from University Honors 251c and/or 351c
GSD 101-3	Linguistics 101
GSD 107-4	One of: Mathematics 110, 111, 114, 116, 117, 139, 140, 150, 151, 159, 250, 259, 282, or 4 semester hours of technical mathematics
GSD 117-2	Linguistics 102
GSD 118-2	One of: Administrative Sciences 302, Linguistics 103, or 2 semester hours of technical writing
GSE 101-114-4	Four semester hours from: Physical Education 115, 116, 117, 118, 119, 120, 170
GSE unassigned-1 to 4	One of 4 semester hours from University Honors 251e and/or 351e
GSE unassigned-1 to 4	ROTC field training
GSE 201-2	Health Education 350

A maximum of 15 semester hours of comparable technical coursework can be substituted for General Studies requirements. Some of these substitutions are listed above; others may be possible on an individual request to the Dean of General Academic Programs.

Flexibility and Other Features. The University believes in a strong, well-rounded general education program but does not accept the idea that every student must take the same course or program in meeting the objectives. Therefore, considerable latitude is permitted the student in meeting the objectives; alternate routes are provided within the General Studies framework.

Accommodations to differences in student background, interest, and aspirations include:

1. Substitutions of approved departmental courses can be made for General Studies courses as previously outlined;
2. Proficiency examinations are offered regularly for some General Studies courses; students should consult with their academic advisers for information concerning these examinations
3. A University Studies Program (See Chapter 4) allows the students to design a broad undergraduate education.

The Transfer Student and General Studies. A transfer student who expects to graduate from Southern Illinois University at Carbondale with a baccalaureate degree must meet the General Studies requirements as outlined previously. All work done at other institutions will be evaluated and comparable courses will be applied toward the General Studies requirements.

A student who graduates with an associate degree in a baccalaureate-oriented program from a Class I Illinois two-year institution, will be considered as having junior standing and as having met all General Studies requirements. A student who graduates with an associate degree from another regionally accredited institution will receive the same benefits if, after a review of the transcripts by the Office of Admissions and Records, a determination is made that the associate degree is baccalaureate-oriented.

Additional information concerning admission of a transfer student and the evaluation of transfer credit can be found in the sections of this catalog pertaining to those specific subjects.

Capstone Program

The Capstone Program is a program for the transfer student, with an Associate in Applied Science degree or equivalent certification, whose needs can be met within one of the participating departments. It is a two-year program that gives maximum credit for previous academic and work experiences in the student's occupational field. The purpose of a Capstone Program is to provide an opportunity for students to add to the marketable occupational skills and competencies which they have already acquired.

Key features of the Capstone Program are: (1) It is for selected occupational students who have changed their educational and occupational goals; (2) It is an alternative baccalaureate degree program involving no more than two additional years of college at a four-year institution; (3) It seeks to recognize similar objectives in both two-year occupational programs and four-year baccalaureate degree programs; (4) It seeks to recognize similar objectives in certain work experiences and in four-year baccalaureate degree programs; and (5) It provides a unique opportunity for developing secondary and post-secondary occupational teachers who possess strong work experience and training in a variety of technical specialties and sub-specialties.

The Capstone Program at Southern Illinois University at Carbondale can lead to the Bachelor of Science degree in any of the following areas:

School of Agriculture
- Agribusiness Economics
- Agricultural Education
- Agricultural Education and Mechanization
- Agriculture, General
- Animal Industries
- Plant and Soil Science

College of Education
- Business Teacher Education
- Home Economics Education
- Occuational Education

College of Human Resources
- Administration of Justice
- Child and Family
- Clothing and Textiles
- Food and Nutrition

College of Engineering and Technology
- Industrial Technology

School of Technical Careers
- Baccalaureate degree programs — individualized programs

The listing of majors which participate in the Capstone Program may change from time to time.

REQUIREMENTS FOR THE BACHELOR OF SCIENCE DEGREE THROUGH CAPSTONE

A student completing the degree through the Capstone Program must complete the hour requirements, residence requirements, and average requirements as are required for all bachelor's degrees. These requirements are explained near the beginning of this chapter. The course requirements for the Capstone Program are explained below.

The following General Studies requirements must be satisfied:

Science	6 semester hours
Social Science	6 semester hours
Humanities	6 semester hours
Health and Physical Education	3 semester hours
English Composition	one course

Mathematics ..... one course
Speech ..... one course
Minimal Total ..... 30 semester hours

In addition to the General Studies requirements, the student must complete the requirements specified in a contract to be developed between the student and the academic unit or department representative. The contract will list the remaining requirements for the baccalaureate degree.

PROCEDURES FOR APPLYING TO THE CAPSTONE PROGRAM

To be considered for the Capstone Program, the following conditions must be met:

1. Admission to the University and to the department offering the capstone option must be completed. An application to the Capstone Program cannot be considered prior to official admission into the University.
2. The applicant must complete an associate degree program or its equivalent certification.
3. The applicant must have a minimum grade point average of 2.25 (4.0 grading scale) as computed by Southern Illinois University at Carbondale and according to regular University grading policies and procedures.
4. The applicant must file the application to the Capstone Program no earlier than one term prior to the intended entry into the program and no later than the completion of the first term of attendance at Southern Illinois University at Carbondale. Southern Illinois University at Carbondale students need to submit the application during the term preceding or just following completion of associate degree requirements.

If advance approval is granted to pursue a Bachelor of Science degree through the Capstone Program and the minimum requirements of points 2 and 3 are not met, the approval for admission to the program will be withdrawn.

Academic Units and Programs Offered

School of Agriculture

GILBERT, H. KROENING, *Dean*

Departments: Agribusiness Economics; Agricultural Education and Mechanization; Animal Industries; Forestry; Plant and Soil Science

The School of Agriculture offers the following majors leading to the Bachelor of Science degree.

Agribusiness Economics
Agricultural Education
Agriculture, General
Animal Industries
Agricultural Education and Mechanization
Forestry
Plant and Soil Science

It is recommended that high school students who are planning to pursue one of the above majors include the following in their high school program: four units of English, two to four units of mathematics (algebra, geometry, advanced mathematics); two to three units of science (biology, chemistry, physics); and two to three units of social studies. Remaining units might well include agriculture.

For transfer students wishing to pursue a major in one of the agricultural or forestry areas, courses taken prior to entering Southern Illinois University at Carbondale should include a distribution in the physical and biological sciences, social sciences, and humanities. In addition, a course in speech and appropriate sequences in English composition and college algebra should be included. A potential transfer student who has already identified a major for the bachelor's

degree may select with greater precision the courses which will be transferred by consulting the curriculum for that major in Chapter 4.

A student planning to take preprofessional courses in veterinary science should register in the School of Agriculture's four-year curriculum in animal industries.

Qualified candidates for the Capstone Program are accepted with major in agribusiness economics, agricultural education, agricultural education and mechanization, animal industries, general agriculture, and plant and soil science. The Capstone Program is described earlier in this chapter.

Of the recent graduates of the School of Agriculture, about 35% have been employed in private industry, about 20% have entered farming or farm management and about 15% have been employed in each of: government (federal, state, county, and city); education or extension; graduate study or professional schooling.

In addition to preparing students for employment in the traditional agricultural and agriculturally related occupations, the School of Agriculture is increasing its emphasis on the currently important areas of environmental studies and ecology.

School of Agriculture students come from both rural and urban homes, and a rapidly increasing number of agriculture and forestry students are women. Students who elect any one of the seven majors in the School of Agriculture are counseled and advised for registration in the school. Graduates receive the Bachelor of Science degree.

The Agriculture Building houses the offices, classrooms, and laboratories of the school. Other research and teaching facilities include over one-third acre of greenhouses plus 2,000 acres of farm and timber land.

College of Business and Administration

JOHN R. DARLING, *Dean*

Departments: Accountancy; Administrative Sciences; Finance; Marketing

The College of Business and Administrative aims to prepare students to perform successfully in business and other organizations functioning within a changing social, economic, and political environment. Study provides the student with fundamental principles and practices of organizational behavior and allows the mastering of knowledge and skills for effective management. The curriculum provides a broad base for understanding business while simultaneously allowing in-depth study within an area of concentration. Students find that the professional education they receive in the college is desired by business, governmental units, and other public institutions. The advanced curriculum and related programs provide students not only with a meaningful education but with a means of relating that education to organizations and commerce.

The College of Business and Administration offers the following majors leading to the Bachelor of Science degree.

Accounting	Business Economics
Administrative Sciences	Finance
Business and Administration	Marketing

Any student, whose personal and professional goals cannot be met by any of the majors listed above, may design a special major in accordance with the University guidelines which are fully described in Chapter 4 of this catalog.

While minors are not offered, academic advisers of the college will assist and counsel those students enrolled in other units of the University having an interest in electing business courses.

All programs offered in the College of Business and Administration are accredited by the American Assembly of Collegiate Schools of Business.

The College of Business and Administration offices are located in the General Classroom Building, and the classes are conducted in various buildings throughout the campus.

Pre-College Preparation. High School and preparatory school students are urged to follow a program which includes at least three units of both English and mathematics, with a substantial portion of the remainder of their study programs devoted to such academic subject areas as humanities, the sciences, and social studies.

Transferred Credits in Business Courses. Subject to the University's policies regarding acceptance of transferred credits, the college accepts college-year credit earned in business and economics courses from accredited two- or four-year institutions of higher education and counts such credit toward the 120 semester hours required for graduation. However, if such courses are offered at the lower division (freshman and sophomore) level at the institution where completed, only those courses shown below will be treated as equivalencies to college- or departmental-required courses.

Subject	*Hours*
Principles of accounting	6
Cost accounting	3
Economic principles	6
Business economics statistics (where college algebra is a prerequisite)	3
Basic compuster courses[1]	3

[1]Computer coursework completed at other universities and colleges will be accepted as transfer credit for the College of Business and Administration core computer requirement if that course is designed to teach one and only one of the following languages: FORTRAN, BASIC, COBOL, RPG, PLI, or ALGOL. Courses that survey numerous languages are not acceptable. Further, coursework with emphasis on unit record or data processing equipment will not be considered equivalent to the college's computing requirement. Acceptable coursework should have a one-language base and present the student with advanced programming concepts, e.g., loops, arrays, etc.

Additionally, three semester hours of introduction to business and three semester hours of business law (contracts and agency) completed at the lower division level are acceptable in satisfaction of department requirements, in those programs where these courses are required.

Students also have the opportunity of validating additional coursework and nothing in the above statement abridges a student's right to satisfy graduation requirements by proficiency (or competency) examinations. Such examinations are treated as a student right by the college and are available for most courses.

Grade Point Average Requirement. Graduation from the College of Business and Administration requires achievement of a 2.000 grade point average in all business-prefix (ACCT, ADSC, ECON, FIN, MKTG) courses offered at Southern Illinois University at Carbondale. Accounting majors are subject to the additional requirement of achieving a grade of *C* or better in accounting-prefix (ACCT) courses completed at Southern Illinois University at Carbondale.

Pass/Fail Policy of the College. Business majors may not register on a Pass/Fail basis for courses used to satisfy requirements of the professional business core.

Course Sequencing. It is of the utmost importance that required courses be sequenced properly. Sequencing guides are available from the college's academic advisement center and are published in the College of Business and Administra-

tion's *Student Information Manual.* Courses on the 300 to 400 levels are reserved for junior and seniors.

Forty Percent Rule. At least 40% of the coursework of all business majors must be devoted to courses offered outside the College of Business and Administration; at least 40%, to courses offered by the College of Business and Administration.

Multiple Majors in Business. Business majors may choose to complete two or more of the six majors offered by the college. While all requirements of each major must be satisfied, this can usually be accomplished through judicious use of electives without extending anticipated graduation dates beyond one semester. All majors will be noted on the diploma issued on completion of the Bachelor of Science degree.

Special Majors. Students with special interests or needs which cannot be met by any of the majors offered by the college may participate in designing their own programs under the special major program. Examples of such programs include those designed to prepare graduates for careers such as managers of airports, hospital administrators, and business consultants. To support a growing trend among students to utilize the special major to prepare themselves for careers in small business management, the college has added to its offerings such courses as Administrative Sciences 350, Finance 350, and Marketing 350. Special major programs must be coherent and unified and have as a sponsor a member of the teaching faculty of the college. All Southern Illinois University at Carbondale and college requirements must be met.

General Studies Courses Prescribed for Business Majors
Area A: None
Area B: GSB 202 and Economics 214 (an approved General Studies substitute)
Area C: None
Area D: Mathematics 139 or 116 (approved General Studies substitutes) and GSD 152 or 153. (Administrative Sciences 302, an approved substitute in Area D, may be substituted for GSD 118.)
Area E: None
These hours count toward partial fulfillment of General Studies Requirements of 45 semester hours.

Professional Business Core. The professional business core, required of all College of Business and Administration students, is comprised of the following courses:

Courses	*Semester Hours*
Accounting 221, 222	6
Administrative Sciences 208, 304, 318, 481	13
Computer Science 212 or Electronic Data Processing 217	3
Economics 215	3
Finance 320, 370[1]	6
Marketing 304, 305	6
Mathematics 140 or 117[2]	4-5
Business-prefix (ACCT, ADSC, ECON, FIN, OR MKTG) courses outside the major	6
Total	47-48

[1]The combination of Finance 271 and 372 may be subsituted for 370.
[2]Mathematics 150 may be substituted for 140 or 117.

College of Communications and Fine Arts

C.B. Hunt, Jr., *Dean*

Departments: Cinema and Photography; Radio-Television; Speech Communication; Speech Pathology and Audiology; Theater
Schools: Art; Journalism; Music

The College of Communications and Fine Arts offers the following majors leading to the Bachelor of Science degree:

Journalism	Speech Communication
Radio-Television	Speech Pathology and Audiology

The Bachelor of Arts degree is offered for a major in the School of Art, in cinema and photography and in theater. The Bachelor of Music and the Bachelor of Arts degrees are offered for a major in the School of Music.

There are specific requirements for admission to the major in the School of Art. Students considering enrolling in the school should make appointments with the chief academic adviser to determine eligibility for the studio and studio crafts specializations for the designated major.

In the communications fields of journalism, radio-television, speech communication, and speech pathology and audiology, a *C* average in GSD 101 or an approved equivalent is required.

A student with special personal and professional goals which cannot be met by one of the traditional majors is encouraged to design a special major. The requirements for the various majors and for special majors are listed in the next chapter.

Faculty of the college are engaged in research/creative activity in mass communications and in many other areas; provide consulting and other services to schools, newpapers, radio and television stations, and to national and international organizations. A number of special events are presented each year, including lectures by noted artists, music performances, dramatic presentations, and art exhibitions.

The Broadcasting Service operates WSIU (FM), a public radio station, WSIU-TV, Channel 8, a public television station, both in Carbondale, and a second public television station, WUSI-TV, Channel 16, at Olney. The Broadcasting Service also operates a Radio Tape Network, distributing programs to radio stations.

Administrative offices of the college are located in the Communications Building, which includes the newest theater on campus along with broadcasting facilities, film production facilities, and the office of the *Daily Egyptian.*



College of Education

ELMER J. CLARK, *Dean*

Departments: Curriculum, Instruction, and Media; Educational Leadership; Guidance and Educational Psychology; Health Education; Higher Education; Physical Education; Recreation; Special Education; Vocational Education Studies

The College of Education offers the following programs[1] leading to the Bachelor of Science degree:

Agricultural Education
Art
Biological Sciences
Botany
Business Education
Chemistry
Classics (To teach Latin)
Early Childhood Education
Economics
Elementary Education
English
French
Geography
German
Health Education
History
Home Economics Education
Language Arts and Social Studies
Mathematics
Music
Occupational Education
Physical Education
Physics
Political Science
Recreation
Russian
Secondary Education[2]
Social Studies
Spanish
Special Education
Speech Communication
Speech Pathology and Audiology
Zoology

[1]In addition to programs offered almost entirely within the College of Education, certain programs are offered in cooperation with the College of Liberal Arts (e.g., mathematics, economics) or with the College of Communications and Fine Arts (e.g., art, music), School of Agriculture (agricultural education), and the College of Science (e.g., biological sciences, chemistry).

[2]This is not an academic major. Persons planning to teach in secondary schools should refer to the curriculum, instruction, and media section of this catalog for a listing of academic majors and minors.

The College of Education also grants the Bachelor of Music Education degree.

Preparation of teachers at all levels and in all areas of instruction in the public schools from preschool education through high school is the special function of the College of Education. In its graduate offerings the efforts of the College of Education include professional work for prospective college teachers and administrators and several specializations in elementary and secondary school administration and supervision.

For most undergraduate students preparing to teach in high schools, the subject-matter courses will be taken in the other colleges and schools of the University, and the professional preparation for teaching, including student teaching, will be taken in the College of Education. Graduates of the College of Education receive the Bachelor of Science or the Bachelor of Music Education degree.

Students who wish to become principals or supervisors in the public schools take graduate work in the Department of Educational Leadership. The department's major emphasis is on graduate work, but it also participates in providing background for elementary and high school teachers. Likewise, students wishing to pursue a career in teaching or administration in colleges and universities take graduate work in the Department of Higher Education. The department does not offer an undergraduate major in higher education, but it provides courses for undergraduate credit providing a broad background in higher education for elementary and high school teachers.

The College of Education, housed in the Wham Education Building, is the oldest unit of the University, which was originally chartered as Southern Illinois Normal University.

Teacher Education Program

Southern Illinois University at Carbondale is fully accredited by the National Council for Accreditation in Teacher Education (NCATE) and by the State Teacher Certification Board, Springfield. The teacher education program is an all-university function administered by the dean of the College of Education. An advisory committee composed of faculty and students serves in a recommending capacity to the dean.

Teacher education programs, approved by the State Teacher Certification Board, are offered in elementary education, early childhood education, early childhood-preschool education, special education, and in secondary education majors and minors. The special education major offers specializations in education of the behaviorally disordered, education of the mentally retarded, and education of the learning disabled.

Only those students who complete an approved teacher education program are recommended for certification and may receive a teaching certificate through the entitlement process. Further information and procedures for receiving the certificate are explained below under Certification.

ADMISSION TO THE TEACHER EDUCATION PROGRAM

Admission to the College of Education does not guarantee admission to the teacher education program. Admission is granted only after specific criteria have been met. A student is eligible to make formal application to the program with a minimum of 30 semester hours of completed work including Education 201, an approved teaching major, and an overall grade point average of at least 2.15 (4.0 scale). Applications must be submitted in person and must be accompanied by verification that all prerequisites have been met. Applications received through the mail will not be considered. Application forms, as well as information about the teacher education program, are available in the office of the coordinator of teacher education services in the Wham Education Building, room 108. Students are encouraged to investigate the feasibility of applying for a particular teaching field early in their undergraduate careers by contacting their adviser or the department in which they wish to specialize.

If a student's application is approved after being reviewed by the coordinator of teacher education services, the student is issued a membership card which entitles the student to begin work in the basic professional education courses which are prerequisite to the professional semester of student teaching. At the end of the first semester of membership, the department offering the student's major is requested to submit a recommendation as to whether or not the student should be retained in the program. Failure to obtain approval prohibits the student from continuing with the professional education courses and could lead to suspension from the program. In order to remain in the program and complete the requirements for graduation and teacher certification, they must attain an overall grade point average of at least 2.25 (4.0 scale) and receive departmental approval. Both of these requirements must be met before final clearance can be given for a student teaching assignment.

Students who are not able to meet the criteria of the teacher education program or their major department will be counseled about alternative programs.

DEGREE REQUIREMENTS

In addition to general studies and major requirements, each degree candidate in a teacher education program must complete the course requirements listed below:

1. Four semester hours in health and physical education by taking GSE 201 and two hours of GSE 100-114. These courses should be selected as a part of the general studies requirements.
2. A course in American history or government (GSB 212 or 300 recommended.)
3. The United States and State of Illinois constitution examinations requirement. This requirement for continuing certification in Illinois may be met by taking GSB 212, 300 or 301; by taking a course in American history or political science other than GSB 212, 300 or 301 and passing the constitution test administered by the University; or by presenting written notification from another institution that a course in American history or government has been passed and that the tests have been passed on the constitutions of the United States and the State of Illinois.
4. GSB 202 as a prerequisite for Education 301 in the professional education sequence. GSB 202 should be selected as a part of the general studies requirements.
5. GSD 101 and GSD 117, 118, or 119, and one additional English course (GSC or English department) with a grade of *C* or better in each of the last two courses completed. This requirement is a prerequisite to admission to the professional semester.
6. The professional education sequence listed below. Each of the courses which are part of the program prior to the professional semester must be completed with a grade *C* or better as a prerequisite to admission to the professional semester. Education 201 must be completed prior to admission to the teacher education program.

Professional Education Sequence 25

Decision Component

Education 201 1

Basic Professional Block

Education 301 2
Education 302 2
Education 303 2
Education 304a, b, c, d, e, f, g, h 2
Education 312 ± 1

Professional Semester –

Education 350 3
Education 400 4
Education 401 8

7. Illinois State Teacher Certification Board general education course distributions in: language arts, science, mathematics, social science, humanities, health, and physical education. Students having questions concerning whether their programs meet certification board requirements should discuss their concerns with their academic advisers.

– Concurrent registration in Education 350, 400, and 401 is required during the professional semester.

± The following courses are approved substitutes for Education 312 as a part of the professional education requirements for the majors indicated: Art 318 and 328 for art majors; Music 304 and 306 for music majors; Speech Communication 230 and 390 for speech majors; and Speech Pathology and Audiology 105 and 493 for speech pathology and audiology majors.

Certification

A student who is nearing completion of the teacher education program (usually during the last semester) can obtain the forms to make application for entitlement to certification for the State of Illinois from the dean's office of the College of Education, Wham Education Building, Room 115. Upon completion of the application forms by the student and payment of the certification board fee, the dean's office staff will process the forms with the State Teacher Certification Board and entitlement cards will be sent to the dean's office. When the student's

program, including graduation clearance, is completed, the office will mail the cards to the student's permanent address for use in applying for certification through the student's future educational service region superintendent.

The State of Illinois issues through the entitlement process the Standard Elementary Certificate, Standard High School Certificate, Standard Special Certificate, or Early Childhood-Preschool Certificate to students who graduate from an approved teacher education program at Southern Illinois University at Carbondale.

Standard Elementary Certificate. Students planning to teach on the elementary level in the public schools of Illinois register in the College of Education. Requirements for entitlement to the State of Illinois standard elementary certificate may be through the completion of the early childhood (K-3) education program or the elementary education (K-9) program. For further information concerning these programs, see the sections of this catalog titled curriculum, instruction, and media and professional education experiences in Chapter 4.

Standard High School Certificate. Requirements for entitlement to the State of Illinois standard high school certificate and for entitlement to the standard special certificate may be met as explained in the section of this catalog titled curriculum, instruction, and media in Chapter 4. A listing of majors, minors, and other programs approved for certification entitlement purposes at Southern Illinois University at Carbondale is presented there. It is possible for a student to be registered in one of the colleges or schools other than the College of Education and to meet the state requirements for the standard high school certificate or the standard special certificate by using as electives certain prescribed professional education requirements in the College of Education.

Standard Special Certificate. Teaching all grades, kindegarten through grade 12, requires the standard special certificate. As noted above, requirements for entitlement to the standard special certificate may be met in the manner outlined in the section of this catalog titled curriculum, instruction, and media in Chapter 4. Teaching fields for which the standard special certificate is issued include physical education, special education, music, art, and speech pathology and audiology.

Early Childhood-Preschool Certificate. Students planning to teach at the preschool level in public schools or other settings in Illinois register in the College of Education or in the College of Human Resources. The early childhood-preschool program was specifically designed to prepare future teachers of prekindergarten children. For further information concerning the program, see the section of the catalog titled curriculum, instruction, and media in Chapter 4.

College of Engineering and Technology

KENNETH E. TEMPELMEYER, *Dean*

Departments: Electrical Sciences and Systems Engineering; Engineering Mechanics and Materials; Mining Engineering; Technology; Thermal and Environmental Engineering

The College of Engineering and Technology offers the following majors leading to the Bachelor of Science degree:

Engineering
Engineering Technology
Industrial Technology

Specific requirements are listed for the various majors offered by the colleges in the next chapter.

Qualified candidates for the Capstone Program are accepted with majors in industrial technology. The Capstone Program is described earlier in this chapter.

The College of Engineering and Technology provides instruction over a broad spectrum of engineering and technology. Through instruction, research, and consultative services, it services Southern Illinois, the state, and the nation.

Baccalaureate and master's degrees in engineering are offered through the cooperative efforts of the four engineering departments. The Department of Technology has responsibility for baccalaureate degree programs of study in engineering technology and industrial technology.

The application of transfer credit from senior institutions to program requirements in the College of Engineering and Technology must be approved by the dean or a designated representative.

Administrative offices of the college are located in the Technology Building near Lake-on-the Campus.

General Academic Programs

JEWELL A. FRIEND, *Dean*

General Academic Programs includes the following:

General Studies
Center for Basic Skills
Special Majors
Talent Search
Special Supportive Services
University Studies
University Honors Program
Pre-Major Advisement Center
Upward Bound

Generally concerned with the freshman and sophomore years, General Academic Programs offers academic support programs designed to enhance opportunities for success for all its students. The University Studies program offers B.S. or B.A. degrees. Students interested in General Academic Programs should contact the dean of General Academic Programs.

Center for Basic Skills

The Center for Basic Skills is designed to enhance the success factor for students deficient in basic skills but who demonstrate the potential for college work and to offer services to students interested in improving their reading, writing, and mathematics skills. The center offers courses in speech communication, reading, writing and mathematics. Students should direct inquiries to the director of the Center for Basic Skills.

General Studies

The General Studies Division coordinates the courses which comprise the General Studies Program and the general education requirements for all undergraduates in the University. The General Studies Program is intended to provide graduates of Southern Illinois University at Carbondale with the broad foundation of knowledge necessary for both personal development and for informed action as a responsible member of society. The number and variety of courses allow for adaptation to individual needs.

The General Studies Advisory Council, composed of faculty and student representatives, advises the dean of General Academic Programs on matters of policy and curriculum which determine the direction and development of the program.

Pre-Major Advisement Center

The Pre-Major Advisement Center is the academic home of students who have

not declared a major. The advisers have a wide acquaintance with the many programs offered by the University and are ready to help students to select a suitable area of specialization.

University Honors Program

The University Honors Program is a University-wide undergraduate program designed to offer unique educational experiences to participating students. The program also includes making available small sections of large classes, special seminars, independent studies, and other methods of enriching the education of its members, who are designated University Scholars.

At the time of graduation, an indication of participation in the program is made on the diploma for students who complete all requirements.

The director of Honors Opportunities is aided by the Honors Council and by the Council of University Scholars in administering the program.

The University Honors Program also oversees, publicizes, and coordinates all-campus award competions, and some internships and travel/study plans. The director of Honors Opportunities seeks out special educational opportunities for students as a further way of offering more challenging and more interesting educational opportunities. Students with special educational needs are encouraged to discuss their plans with the director of Honors Opportunities.

Admission and retention information for University Scholars is found in chapter 2.

University Scholars may complete the General Studies requirements of the University by enrolling in advanced courses in departments which offer General Studies Classes. With the close cooperation of the Honors Sponsor, individual options may be exercised which fulfill the spirit of General Studies requirements, but, to challenge the University Scholar, may depart from standard University requirments.

Baccalaureate degrees for University Honors Program participants are awarded through the regular degree granting units.

Inquiries about the program should be addressed to the dean, General Academic Programs.

Special Major

A student whose academic needs are not met by existing baccalaureate programs may arrange a special baccalaureate degree program in lieu of a standard curriculum. In consultation with a faculty sponsor, the student draws up a program for which the baccalaureate degree will be awarded, with final approval from the dean of General Academic Programs. The special area program should have structure, organization, and a rationale consistent with the student's post-baccalaureate plans. The special major must include all-University and unit graduation requirements.

Examples of special majors which have been developed: Environmental Systems Design; Broadcast Management and Sales; Community Health; Juvenile Services and Corrections; Physiological Microbiology; Studies in Humanism; Creative Arts; General Environmental Studies; Asian Studies; Biological Marketing; Museum Studies. Interested students should confer with the dean of General Academic Programs.

Special Supportive Services

The Special Supportive Services program is an academic support system designed for students with academic potential who are from indigent or culturally different backgrounds. Modified admissions criteria emphasize motivation and require a personal interview. The specialized services offered through this program include but are not limited to (1) personal and career counseling and guidance, (2) a comprehensive tutorial program, and (3) special services consistent with the goals of recruiting, retaining, and graduating target populations.

Eligible participants must be citizens of the United States and conform economically to federal low-income standards unless they are physically handicapped or speak limited English.

Talent Search

The mission of Talent Search is to encourage full utilization of educational talents in Southern Illinois. It endeavors to find qualified, high-need, or potential students and assist them in continuing or renewing their educational efforts.

Inquiries about the program should be addressed to the director.

University Studies Program

In the University Studies Program students pursue either a Bachelor of Arts or Bachelor of Science degree through an individually designed, broad based curriculum rather than a traditional specialization. The program accommodates multi-disciplinary and non-traditional approaches to education and to related career and life-styling.

To determine eligibility for the University Studies Program as well as to explore specific program possibilities, students should consult the dean, General Academic Programs, or the program coordinator.

Upward Bound

This is a support program which identifies and recruits seventh to twelfth grade students in specific areas of southern Illinois who have the potential for serious academic work but who are insufficiently motivated. The program provides developmental, personal, and academic opportunities for underprivileged students who might not otherwise see themselves as future college students. Persons interested should direct inquiries to the director, Upward Bound.

Graduate School

JOHN C. GUYON, *Associate Vice President for Research and Dean of the Graduate School*

Southern Illinois University at Carbondale is a comprehensive university with an extensive offering of graduate programs and a significant commitment to an overall program of research. More than 3,400 graduate students pursue advanced study and research under the leadership and direction of some 900 graduate faculty members. The Graduate School offers master's degrees through sixty-five programs, the specialist degree (sixth year) in four areas of education, and the doctoral degree through twenty-two programs. The Ph.D. program in education has concentrations in thirteen different areas.

The following graduate degrees are offered: Master of Accountancy, Master of Arts, Master of Business Administration, Master of Fine Arts, Master of Music, Master of Music Education, Master of Public Affairs, Master of Science, Master of Science in Education, the Specialist degree, the Doctor of Philosophy degree, the Doctor of Business Administration, and the Doctor of Rehabilitation degree.

The Graduate School is fully accredited by the North Central Association of Colleges and Secondary Schools, and specific programs have been accredited by appropriate state and national accrediting associations.

A separate catalog describing admmission and graduation requirements for the various programs in the Graduate School may be had by writing to the Graduate School, Southern Illinois University at Carbondale, Carbondale, Illinois 62901. An application for admission to graduate study may be requested from the Graduate School.

College of Human Resources

SAMUEL GOLDMAN, *Dean*

Divisions: Comprehensive Planning and Design with academic programs in Clothing and Textiles, Interior Design and Design; Human Development with academic programs in Child and Family, Family Economics and Management and Food and Nutrition; Social and Community Services with academic programs in Black American Studies, Community Development and Social Welfare; Center for the Study of Crime, Delinquency, and Corrections; Rehabilitation Institute

The College of Human Resources offers the following majors leading to the Bachelor of Science degree:

Administration of Justice	Food and Nutrition
Child and Family	Interior Design
Clothing and Textiles	Social Welfare
Family Economics and Management	

It also offers a major leading to the Bachelor of Arts degree in design.

The specific requirements for each of these majors are listed in the next chapter.

Qualified candidates for the Capstone Program are accepted with majors in administration of justice, child and family, clothing and textiles, family economics and management, and food and nutrition. The Capstone Program is described earlier in this chapter.

Minors are offered in administration of justice, black American studies, child and family, clothing and textiles, community development, and consumer studies.

School of Law

DAN HOPSON, *Dean*

The school offers a three-year program leading to the Juris Doctor (J.D.) degree. The school received provisional accreditation from the Section on Legal Education of the American Bar Association during its first year of operation, so that all students enrolled are eligible to take state bar examinations required for admission to the bar.

Three buildings have been remodeled to provide classroom, library, and office space for the School of Law pending completion of a permanent building expected in the spring of 1981. Other available resources include an adequate law library collection and a broadly based University with extensive law-related graduate divisions and other academic units. Because of space limitations, the entering class will be limited to approximately 90 students until a permanent building is completed.

The faculty and student body of the school are of the highest quality, and its curriculum is designed to inculcate fundamental legal concepts and skills which every lawyer must have and which are the hallmarks of the profession of law. In addition to the Socratic — casebook method, other teaching methods, including clinical, are utilized as the subject matter requires. The School of Law catalog can be obtained by writing the School of Law.

College of Liberal Arts

JAMES F. LIGHT, *Dean*

Departments: Anthropology; Computer Science; Economics; English; Foreign Languages and Literatures; Geography; History; Linguistics; Mathematics; Philosophy; Political Science; Psychology; Religious Studies; Sociology

The College of Liberal Arts offers the following majors leading to the Bachelor of Arts and Bachelor of Science degrees. Minors are possible in most of these areas. For exceptions, see next chapter.

African Studies[1]
Anthropology
Asian Studies[1]
Comparative Literature[1]
Computer Science
Earth Science[1]
Economics
English
Foreign Languages and Literatures
Chinese[1]
Classical Civilization[1]
Classics
East Asian Civilizations[1]
French
German
Greek[1]
Japanese[1]
Latin[1]
Russian
Spanish
Geography
History
Latin American Studies
Linguistics
Mathematics
Philosophy
Political Science
Psychology
Religious Studies
Sociology
Speech Communication[2]
Uncommon Languages[1]

[1]Minor only.
[2]Liberal arts major, not professional major.

The College of Liberal Arts provides instruction in basic subject matter courses of General Studies, majors in nineteen subject areas, graduate programs for students pursuing master's and Ph.D. degrees, preprofessional curricula for specialized schools such as law and theology, and courses offered through the Division of Continuing Education. The Bachelor of Arts or Bachelor of Science degree is granted to students who fulfill requirements for graduation from the College of Liberal Arts. The courses of study outlined by the departments determine the degree awarded. Students in the College of Liberal Arts may also prepare directly for teaching at the secondary level by including in their studies certain professional courses offered by the College of Education.

Through the diversified offerings of the College of Liberal Arts, students develop the ability to seek and weigh evidence and to think critically and independently; they gain a fundamental understanding of the ever changing social, political, and physical environment, and a deeper understanding of people, cultures, art, and literature.

ACADEMIC REQUIREMENTS

To receive a degree from the College of Liberal Arts students will be expected to fulfill the following:

1. University requirements including those relating to General Studies, residency, total hours completed, and grade point average.
2. College of Liberal Arts requirements of one year of a foreign language (not less than six semester hours); one course in either mathematics or computer science, and one course in English composition in addition to General Studies requirements.
3. Completion of an approved major in the College of Liberal Arts.
4. At least 40 hours of course work at the 300 or 400 level. Liberal arts major requirements provide for a large number of elective courses, giving students maximum flexibility in planning their overall program of study at the University. To

assist students in planning their programs, the college maintains an academic advisement office in Faner Hall 1229, as well as faculty advisers in each department. Students are urged to consult these academic advisers on how they can best use their electives to fulfill their intellectual interests and to prepare for particular career opportunities. A carefully planned minor or second major field can lead to additional career opportunities for the liberal arts major. Students who are planning to attend graduate school or one of the professional schools such as law or medicine should consult with their advisers on how best to plan their undergraduate curriculum.

PRE-LAW

The College of Liberal Arts has a pre-law advisory committee to help students plan a useful, interesting curriculum to improve the skills important for the study of law. This committee is made up of faculty members of various University units who hold law degrees or who have particular expertise in fields important to law and pre-law preparation. The committee sponsors a Pre-Law Night each fall, where opportunities are presented for open discussion of undergraduate curriculum and the law school admission process. These discussions are led by students and faculty of the Southern Illinois University at Carbondale School of Law. A mock Law School Admission Test is given twice a year under regular test conditions.

The pre-law student may choose any major course of study. Among courses especially recommended for pre-law students in Liberal Arts (LAC) 105, Law in American Society, a special interdisciplinary course offered each fall semester. Students who are interested in pre-law may discuss academic programs and plans with pre-law advisers in the Liberal Arts Advisement Office.

School of Medicine

RICHARD H. MOY, *Dean and Provost*

Southern Illinois University School of Medicine was established in 1970 in response to a need in Illinois for increased opportunities for education in health fields and the more encompassing need for improvements in the health care delivery system. To have the broadest impact possible on health care in central and southern Illinois, the school is deeply engaged in training men and women who will become physicians. It also emphasizes continuing education and is a center of health care planning and expertise.

The first class of forty-eight students was admitted for instruction in June, 1973. Beginning classes will increase in size until the anticipated maximum of 96 students is reached. Preference is given to applicants from central and southern Illinois intending to practice medicine in the state. Inquiries on admission should be addressed to the Committee on Admissions, Southern Illinois University School of Medicine, P.O. Box 3926, Springfield, Illinois 62708.

The curriculum runs twelve months a year for three years. The first year program, conducted on the campus of Southern Illinois University at Carbondale, has primarily a basic science orientation, but with significant clinical input from the beginning. The second year, at Springfield, is about equally divided between laboratory and clinic; and the third year, also at Springfield is almost exclusively clinical.

Carbondale facilities include extensive and well-equipped laboratories at Southern Illinois University at Carbondale, Memorial Hospital of Carbondale, and public and private clinical facilities. In Springfield, St. John's Hospital and Memorial Medical Center, each having about 700 beds, are utilized. The new Medical Instructional Facility in Springfield accommodates 200 medical students.

College of Science

NORMAN J. DOORENBOS, *Dean*

Departments: Botany; Chemistry and Biochemistry; Geology; Microbiology; Physics and Astronomy; Physiology; Zoology

The College of Science offers majors, and in most cases minors, leading to the Bachelor of Arts and Bachelor of Science degrees in the following fields of study:

Biological Sciences	Microbiology
Botany	Physics
Chemistry	Mathematics
Engineering Biophysics	Physiology
Geology	Zoology

A minor in earth science is also offered.

Included in the curriculum of each department are survey courses that provide an introduction to the subject matter of that discipline while fulfilling the General Studies requirements of Southern Illinois University at Carbondale. These courses assist all students to develop an understanding and appreciation of the impact of science on one's daily life. Elementary and advanced courses are provided to prepare students for professional employment or entrance into professional and graduate schools. Graduate training is also provided by each of the science departments leading to the M.S. or Ph.D. degree. The research interests of the faculty are extremely diverse.

Students in the College of Science may prepare for teaching at the secondary level by fulfilling the additional requirements of the College of Education. The Bachelor of Arts or the Bachelor of Science degree is granted to students who fulfill the requirements for graduation as given and the requirements of the departments in which the students declare their majors.

Each department has specific requirements for students to major in the selected field of interest, but the College of Science has some minimum general requirements listed below.

ACADEMIC REQUIREMENTS

None of these general academic requirements may be satisfied by taking the required courses on a Pass/Fail grading basis.

Biological Sciences. Six semester hours in courses offered by the biological sciences departments in the college, with the proviso that this requirement cannot be satisfied in whole or in part by General Studies courses, but may be substituted for the latter in meeting the General Studies requirements.

Foreign Language. The foreign language requirement can be met by one of the following: (a) passing an 8-hour 100-level sequence in one language; (b) by earning 8 hours of 100-level credit in one language by proficiency examination; or (c) completing three years of one language in high school with no grade lower than *C.* Tests administered during advisement of new students will determine whether proficiency credit is allowable.

A student whose native language is not English may use the native language to satisfy part or all of the science foreign language requirement at Southern Illinois University at Carbondale. If the language is presently taught at Southern Illinois University at Carbondale, academic credit may be earned. If the language is not presently taught at Southern Illinois University at Carbondale, no credit is given, but partial or full satisfaction of the science foreign language requirement may be granted if the student's major department so recommends. A student

whose native language is English but who has learned another language not taught at Southern Illinois University at Carbondale may qualify without credit for partial or full satisfaction of the science foreign language requirement under certain circumstances, including formal recommendation by the student's major department and availability of an examiner and examination materials within the Department of Foreign Languages and Literatures. For information, the student should consult the College of Science advisement center.

Mathematics. The mathematics requirement can be met by (a) passing Mathematics 110a, b or 111 or its equivalent or Mathematics 140, or (b) completing three years of high school mathematics with no grade lower than *C* and achieving a score on the University's Mathematics Placement Test which allows the student to enroll directly in Mathematics 150.

Physical Sciences. Six semester hours in courses offered by the physical science departments of the college, with the proviso that this requirement cannot be satisfied in whole or in part by General Studies courses, but may be substituted for the latter in meeting the General Studies requirements.

General Requirements. At least 40 hours of the student's 120 hours for graduation must be at the 300 or 400 level. The total may include transfer credit for courses judged by the department involved to be equivalent to its upper division courses. For transfer students submitting only the last year in residence, at least 24 of these must be at the 300 or 400 level.

PREPROFESSIONAL COURSES

A student planning a professional career in any of the following fields should register in the College of Science immediately: dentistry, medicine, pharmacy, veterinary science. Preprofessional students should refer to the baccalaureate degree section in this chapter.

School of Technical Careers

ARDEN L. PRATT, *Dean*

The School of Technical Careers is a unit unique to Southern Illinois University at Carbondale among institutions of higher learning. It was created in 1973 to offer a bold new Bachelor of Science degree program tailored for occupationally-oriented students as well as associate degree career and technical programs formerly conducted by the Vocational-Technical Institute.

The educational objectives of the school include:

1. Associate degree programs structured for entry of new students or free flow of students from other institutions or from within other units of the University.
2. Post- or extra-associate offerings in occupational areas related to these programs; and
3. Baccalaureate programs for the student whose career goals are not met by existing or traditional college programs.

Associate degree programs are offered in four general areas: allied health and public services, applied technologies, aviation technologies, and graphic communications.

On the baccalaureate level, the School of Technical Careers has only one Bachelor of Science program, but requirements for that program are as varied as the number of students enrolled because each has an individually tailored course of study. Each student must meet University requirements but, within that framework, is free to build, in consultation with advisers, a program that suits exactly the particular career goals chosen.

Qualified candidates for the Capstone Program are accepted into the baccalaureate program. The Capstone Program is described earlier in this chapter.

Currently, the School of Technical Careers offers majors leading to the Associate in Art or Associate in Applied Science degrees. These are:

Allied Health Career Specialties
Architectural Technology
Automotive Technology
Aviation Technology
Avionics Technology
Commercial Graphics — Design
Commercial Graphics — Production
Construction Technology — Building
Construction Technology — Civil
Correctional Services
Dental Hygiene
Dental Laboratory Technology
Electronic Data Processing
Electronics Technology
Law Enforcement
Mortuary Science and Funeral Service
Nursing
Photographic and Audio-Visual Technology
Physical Therapist Assistant
Secretarial and Office Specialties
Tool and Manufacturing Technology (Numerical Control)

A number of these majors offer third year post-associate specializations to provide the student who holds the associate degree with additional competencies.

Requirements for associate degree programs are listed in Chapter 4 of the Undergraduate Catalog.

Requirements for the baccalaureate program also are discussed in Chapter 4, but since these differ completely among individual students, persons interested should contact the baccalaureate degree adviser in the School of Technical Careers.

Programs in allied health career specialties, dental hygiene, dental laboratory technology, electronics technology, mortuary science and funeral service, secretarial and office specialties, nursing, and the baccalaureate studies division are housed in a new three-story structure near the Arena. Occupied during the 1978-1979 school year, it is the first of two buildings planned to fit the specific laboratory and clinical facilities needs of the School of Technical Careers. Aviation programs are permanently located at the Southern Illinois Airport; other programs are housed in temporary facilities on the Carbondale campus and at the former Vocational-Technical Institute campus near Carterville.

Information on the school, its programs, and course offerings is available through the office of the dean, School of Technical Careers, Carbondale.

4 Undergraduate Curricula and Courses

This chapter contains information about the undergraduate curricula and courses offered by Southern Illinois University at Carbondale. The course descriptions for undergraduate courses are included, but those courses offered for graduate students list only the credit hours and title of the course. The descriptions of graduate level courses are included in the Graduate Catalog. Chapter 1 of this bulletin includes a listing of the undergraduate majors and minors offered. Those majors and minors are included in this chapter with a description of the requirements for their completion. This chapter is arranged in alphabetic order.

Abbreviations Used in this Chapter

Specific courses are identified by three-digit numerals plus, in some cases, a single letter. The first numeral of the three indicates the level of that course. A letter following the three numerals may indicate a *part* of a course (where *a* means first part, *b* means second part, etc.) or may identify the topics or subject areas specified in courses such as readings or special problems. A numeral or numerals separated from the identification number by a dash indicates the number of hours of credit received in the course. For example, Mathematics 110-5 (3,2) indicates a first-level, two-part course of 5 hours in the Department of Mathematics. The two parts of the course may be referred to as Mathematics 110a, b.

The five areas of General Studies are referred to as GSA, GSB, GSC, GSD and GSE. The three-digit numerals following these abbreviations function similarly to those noted above.

In the areas of this chapter which describe course requirements for programs, numerals in parentheses in columns of figures pertain to semester hours which satisfy more than one requirement. They are in parentheses to avoid their being added to the total of the column, which would be a duplication of hours required. For example, under food and nutrition, GSA 115 and 209 satisfy part of the General Studies requirements and contribute 6 hours toward the 45 hours required. The 6 hours is also required for the major in food and nutrition, but does not contribute to the printed total of 53-54 hours.

Course Descriptions

The first entry for each course is a three digit numeral plus, in some cases, a single letter which together with the subject area, serves to identify the course. The first digit indicates that the course is for freshmen, sophomores, juniors, seniors, and graduate students only, depending on whether the digit is 1, 2, 3, 4, or 5 respectively. If the digit is 0, the course is not properly in the above categories.

Following the identification number are a dash and another number, which indicates credit allowed for the course. The maximum credit may be variable, such as Accounting 390-1 to 4. Variable credit courses which have a number of credit hours per semester or per topic which is limited, have those limits in parentheses

following the total maximum hours of credit. An example of such a course is Administration of Justice 492-2 to 6 (2 to 3 per semester). Where courses are formally divided into parts, such as History 330-6 (3,3), the two or more numerals separated by commas in parentheses indicate the credit allowed for each part of the course.

Next is the title, followed by description of the course. If certain requirements must be satisfied before enrollment in a course, they are listed as prerequisites. If a course is a part of the undergraduate pass/fail system, it is so indicated by the term "Elective Pass/Fail" or "Mandatory Pass/Fail."

Not all of the courses described here are offered every semester or even every year. To determine when and where a course is to be offered, consult the schedule of classes obtainable from University Graphics, Southern Illinois University, Carbondale, Illinois 62901. When requesting a schedule, please specify *semester.*

General Studies Courses

OUR PHYSICAL ENVIRONMENT AND BIOLOGICAL INHERITANCE (GSA)

Courses

101-3 Conceptual Insights Into Modern Communication Systems: From Hi-Fi Sound to Laser Beams. The basic laws of nature will be presented in order to understand the functioning of modern communications such as high fidelity sound, radio, and television, and laser beams. There will be a strong emphasis on the nature of home entertainment equipment with discussions on the nature of waves and sound, electricity, and electromagnetism. The students will develop an understanding of the technical vocabulary necessary to judge high fidelity equipment.

106-3 Chemistry for Non-Science Majors. Selected discussions of inorganic, organic and biological chemistry and their relationship to our standard of living and quality of our health and environment. Three lectures with one voluntary help session per week.

110-3 Earth Science. Earth and its major domains with Earth's substances and processes emphasized. Lecture, laboratory. Laboratory manual $3.00. Elective Pass/Fail.

115-3 Biology. For students with a weak biology background or for students who are non-biology majors but have an interest in gaining general knowledge of our biological inheritance. An introduction to the evolutionary development of our physical and biological environment, to the biological problems and processes of a model living organism, and to the role of biological research in the world of the future. Lecture-laboratory. Laboratory manual $4. Elective Pass/Fail.

125-3 Systems Nature of Our World. (Same as GSB 125.) Introduction to the elements of the systems view of the world. The impact of the systems reality on modern life and its simplifying power in science will be stressed.

202-3 Space Science — Astronomy. The solar system, our galaxy, and the universe beyond. Fundamental concepts of the physical sciences as applied in astronomy to our space environment. Lectures will be supplemented by demonstrations and by occasional hours of individual or supervised astronomical observations. Not open to students who have had Physics 302 or GSA 102B. Purchase of exercise sheets under $1.00. Elective Pass/Fail.

208-1 Laboratory Experiences in Physiology. Laboratory course to be taken concurrently with GSA 209. Provides experiences with small animal experimentation and measurements made on the human subject. One two-hour laboratory per week. Prerequisite: concurrent enrollment in GSA 209.

209-3 Principles of Physiology. A comprehensive introductory analysis of the functional machinery of the living body, with emphasis on human physiology. Three lecture hours per week. Not open to students who have taken Physiology 210. Prerequisite: a background in biological science recommended. Elective Pass/Fail.

211-3 Geology of the National Parks. A study of the geologic histories of selected national parks and national monuments. Lectures relate the natural scenic features to geologic processes that have occurred in forming the scenic features. Elective Pass/Fail.

220-3 Survival of Man. (Same as GSB 220.) Topics discussed include the interrelated technological and sociological aspects of the environmental problems concerned with population, food, ecology, water and solid waste. Emphasis is placed on understanding the

total context in which environmental problems must be considered. GSA/B 220 and GSA/B/C 221 may be taken independently; if both 220 and 221 are taken, only three hours may be counted in a given area of General Studies, but three hours may be counted for the three additional hours required for areas A, B, and/or C.

221-3 Survival of Man. (Same as GSB 221 and GSC 221.) Topics discussed include the interrelated ethnological, technological, sociological, moral and ethical aspects of the environmental problems concerned with technology, air pollution, urbanization, natural resource utilization, agriculture and aesthetics. Emphasis is placed on understanding the total context in which environmental problems must be considered. GSA/B 220 and GSA/B/C 221 may be taken independently; if both 220 and 221 are taken, only three hours may be counted in a given area of General Studies, but three hours may be counted for the three additional hours required for areas A, B, and/or C.

230-3 Energy and the Future. Lectures on power, energy, and related concepts. Review of current energy resources and use patterns and outlook for changing patterns including overview of new energy conversion technology and environmental impact of energy use. Look at energy from global viewpoint to identify future limits on energy usage. Voluntary class discussions and student paper presentations.

240-3 Ecology. Fundamental biological and ecological processes important in the individual, population, and community life of organisms including humans are discussed in the context of ecological systems. Lectures are supplemented by one hour of laboratory, field work, or other student options. Elective Pass/Fail.

302-3 Psychobiology. A survey of the role of biological processes in the behavior of humans and other species. Topics covered include structure and function of the nervous system, behavioral endocrinology, psychopharmacology, sensorimotor functions, sleep and waking, motivation, emotions, reinforcement, psychopathology, learning and memory.

303-3 Ferns, Trees, and Wild Flowers. Field identification and natural history of local plants. One lecture and four hours of field work per week.

312-3 Conservation of Natural Resources. A study of people's use and misuse of natural environment emphasizing the ecological perspective.

313-2 Evolution. Principles and processes of the evolution of living things including people.

314-2 Human Heredity. Principles of heredity as related to humans, with emphasis on the effects of environment on the biological inheritance.

321-3 Fossils: Keys to Ancient Life and Environments. A knowledge of the origin, development, and distribution of Ancient Life, environments and relations of life to environments is gained through the study of fossils and associated rocks. Examples of ancient environments, their fluctuations and changes are compared with fluctuations and changes in modern environments. Elective Pass/Fail.

322-3 Earth's Mineral Resources. Acquaints the nonprofessional with the origin, distribution, character, and value of the common minerals and rocks in the Earth's crust. Purchase of lab manual and student-financed field trips. Elective Pass/Fail.

323-3 Introduction to Gems and Gem Materials. Geologic environments, aesthetic considerations, and economic values of different gems are discussed in lecture. Identifications, evaluations, and preparation of gemstones will be presented in laboratory. Additional charge for materials: $10.00. Elective Pass/Fail.

324-3 Water: Our Friend and Enemy. A practical treatment of the relationship between water, surface processes and daily living. Case histories demonstrate why water related disasters occur, including flooding, landslides, beach erosion and subsidence. Water supply and its legal and economic problems for individual property owners and communities are examined. Elective Pass/Fail.

330-3 Weather. Introduction to constituents and processes in the Earth's atmospheric environment; major atmospheric variables; major features, characteristics of the atmosphere; elemental principles of forecasting; meteorological causes of atmospheric pollution. Interaction of processes and variables to define climate for various regions of the world. Charges not to exceed $10 for field trips, $5 for supplies. Elective Pass/Fail.

356-3 Creativity in Science and Technology. Evolution from need to knowledge, and from analysis to synthesis. The social dimension of science and its role in the advancement of humanity. Evolution of scientific thought and technology.

361-3 Acoustics of Music. A survey of the production, transmission, and reception of sounds with emphasis on musical sounds including the operation and characteristics of all major instruments including the voice. Related areas include respiration; the hearing process; binaural, stereophonic, and quadraphonic sound; disc, tape, and optical recording; sound reproduction systems; architectural acoustics including design, construction, and materials; utilization of sound in other disciplines such as business, agriculture, medicine, the animal kingdom; acoustical laboratory equipment and research procedures; environmental sound pollution. Many guest specialists appear. A term paper or project of the student's choice dealing with sound provides for more intensive study in the primary areas of interest. No special training in music, science, or mathematics is required. Cost of textbook is approximately $3.

OUR SOCIAL INHERITANCE AND SOCIAL RESPONSIBILITIES (GSB)

Courses

103-3 Geography of the Human Environment. Provides students with basic information on the nature and problems associated with the major environments of the world. The geographical distribution of climate and physiographic elements of world environments are described. The problems of economic development, environmental change, and the relation of people to the land in the major regions of the world are investigated. Purchase of materials in the range of $4.00.

104-3 The Human Experience: Anthropology. The main ideas of the anthropological approach to the study of humans. Anthropology's relevance to the student in today's world shown through examples drawn from the subject matter of the field.

105-3 The Contemporary World. An examination of the fundamental problems of the contemporary era as seen in historical perspective. No credit toward the major in history. Purchase of books and materials in the range of $7.00. Elective Pass/Fail.

109-3 Introduction to Black America. (Same as GSC 109.) A survey course designed to expose the student to various aspects of the Black experience. aspects included are history, literature, theology, the arts, etc. The textbook is a collection of essays designed for use especially in this course and is supplemented by guest lecturers and audiovisual materials.

111-3 Economic Development of Western Civilization. Emphasizes the underlying trends and forces that have led to the present economic structure of the developed world. The commercial and industrial revolution as well as the rise of the market system and capitalism are treated in their historical context. Elective Pass/Fail.

112-3 Comparative Economic Systems. Introductory analysis of capitalism, socialism, communism as social systems. Each system is examined in terms of its economic, political and social organization. Elective Pass/Fail.

125-3 Systems Nature of Our World. (See GSA 125.)

135-3 The Third World: The African Model. A study of the Third World through a focus on Africa as a model; emphasis on the cultural traditions, the impact of the West, and the problems facing Third World nations today.

160-3 Mass Communication in Society. Acquaints non-journalism students with the history and development of the American mass media. Examines media roles in society, potential for development, weak points, and the roles consumers can and should play regarding the media.

202-3 Introduction to Psychology. An examination of the variables related to the origins and modifications of human behavior using the viewpoints and techniques of contemporary psychology. Purchase of syllabus (about $3.00 to $3.50).

203-4 The Sociological Perspective. A survey of topics that investigates the range of social relationships among people: basic sociological concepts and theories, social groups, social institutions, social and cultural change, and social deviance. Elective Pass/Fail.

206-3 Applied Child Development. An interdisciplinary study of the changes that take place in a child from birth to maturity. Purchase of book in the range of $5.00.

207-3 Contemporary Political Ideologies. A survey of recent political ideologies: Nationalism, Socialism, Communism, Liberal Democracy, Conservatism, Christian Socialism, Fascism, Contemporary Liberation Movements. Elective Pass/Fail.

211-3 Contemporary Economics. A study of the basic economic problems confronting America and the world today. This course gives students a broad latitude in the structuring of topics to be discussed. Problems are discussed from the point of view of public policy as well as theory. Elective Pass/Fail.

212-4 Introduction to American Government and Politics. An introduction to American government including the cultural context, structure and functions of the national political system, and some attention to subnational politics. Elective Pass/Fail.

220-3 Survival of Man. (See GSA 220.)

221-3 Survival of Man. (See GSA 221.)

231-2 The American Educational Systems. A comprehensive study of the nature and purpose of education in the United States and of how our schools are organized, financed, and conducted.

250-3 Introduction to Comparative Government and Politics. A general introduction to the comparative study of political systems with focus on selected contemporary states. Elective Pass/Fail.

255-3 Regional Geography of the United States. A survey of environmental, economic, and historical factors and problems in the development of the United States and its regions. Some attention given to the United States in world perspective.

270-3 Introduction to International Relations. A study of world politics. The cause of international conflict and conditions of peace. Elective Pass/Fail.

299d-2 The High Price of Food. Understanding various forces or components affecting food prices; examination of how changes in these components affect quantity and quality of food; discussion of rational consumer action in matters pertaining to food prices. Elective Pass/Fail.
299e-3 Values, Systems, and Society. (Same as GSC 299e.) Values and ethics in evolutionary systems and cultural prospectives will be critically analyzed. A review of the basic problems of survival and further evolution of civilization.
300-3 Origins of Modern America, 1492-1877. A general survey of the political, social, and economic development of the United States from 1492 to 1877. Purchase of books and materials in the range of $7.00. Elective Pass/Fail.
301-3 Modern America from 1877 to the Present. A general survey of the political, social, and economic development of the United States from 1877 to the present. Purchase of books and materials in the range of $7.00. Elective Pass/Fail.
305-3 Personal Finance. An introduction to the problems of personal financial asset management, including income and expense budgeting. Emphasis also placed on consumer credit, insurance, investments, home ownership and taxation. Not open to students with majors in the College of Business and Administration. Elective Pass/Fail.
321-3 Socialization of the Individual. Inquiry into a variety of social psychological perspectives on human socializations through the life-cycle. Comparative examination of major theoretical approaches and related empirical research concerning socialization of the child, socialization of the adult, sex-role socialization, re-socialization, socialization and sub-culture patterns, and related topics. Elective Pass/Fail.
325-3 Race and Minority Relations. To acquaint students with race and minority groups relations as a social problem; forms, extent, distribution, trends, causes, effects, and evaluations of proposals for reduction of prejudice and discrimination. Blacks, Mexican-Americans, Indians, Japanese-Americans, anti-Semitism, and minority problems in South Africa, India, and other countries included. Elective Pass/Fail.
330-3 Language and Behavior. A wide-ranging examination of the implications of language study for people's view of themselves and their place in the world. Topics deal with the pervasiveness of verbal and non-verbal language in various aspects of modern society. Elective Pass/Fail.
341-3 Marriage as a Social Institution. A sociological examination of interpersonal relationships in contemporary American dating, courtship, and marriage, with an historical and cross-cultural perspective. Elective Pass/Fail.
346-3 Consumer Choice and Behavior. Analysis and overview of consumer behavior, historical as well as present day, with identification of theories related to the choices.
362-3 Science and Technology in Western Societies. A study of the origins, development, and significance of science and technology in the shaping of western societies from the beginnings through the scientific revolution. Historical, philosophical, and sociological perspectives will be used to understand the relationships between science and technology and between these and other cultural and religious values. See also the related course, GSC 362.
378-3 Introduction to American Foreign Policy. An investigation of the means by which American foreign policy is formulated and executed and an analysis of the most significant challenges confronting America abroad. Elective Pass/Fail.

OUR INSIGHTS AND APPRECIATIONS (GSC)

Courses

100-3 Music Understanding. The aural perception of musical sound events, relationships, and structures. Helps the student to become a more sensitive and perceptive listener. Listening assignments include a wide variety of styles and kinds of music. Not historically oriented. Elective Pass/Fail.
101-3 Introduction to Art. A basic introduction to the theory, meaning, and creation of visual art with emphasis upon interdisciplinary concerns. Two hours lecture and two hours studio per week. Possible incidental fee maximum $5.00.
102-3 Problems in Philosophy. Introductory survey of some main philosophic problems concerning people, nature, society, and God, as discussed by major Western thinkers. Possible supplementary paperback expense not to exceed $5. Elective Pass/Fail.
104-3 Moral Decision. Introduction to contemporary and perennial problems of personal and social morality, and to methods proposed for their resolution by great thinkers of past and present. Elective Pass/Fail.
107-2 Life, Leisure, and Recreation. Introduction to the meaning, challenges, and problems of leisure. Analyzes leisure's relation to work, education, religion, recreation, and the totality of life. An attempt is made to help students develop insights, values, and attitudes for self-realization and individual fulfillment in leisure pursuits. For non-recreation majors only.

109-3 Introduction to Black America. (See GSB 109.)
200-3 Oral Interpretation of Literature. Beginning study of the oral interpretation of literature: appreciation, analysis, performance. Emphasis is upon literature as human experience and upon the creative role of the reader in engaging the literary text. Incidental costs not to exceed $2.00 Elective Pass/Fail.
201-3 Introduction to Drama. Students will read and discuss plays of different types and periods. Prerequisite: GSD 120; GSD 101 and GSD 117, 118 or 119, or equivalent. Elective Pass/Fail.
202-3 Introduction to Poetry. Students will read and discuss poems of different types and periods. Prerequisite: GSD 120; GSD 101 and GSD 117, 118, or 119, or equivalent. Elective Pass/Fail.
203-3 Introduction to Theatre. A study of theatre as an art form; its historical development; the relationship with the theatre audience; and understanding of the functions of theatre artists; theatre as a source of enjoyment, perception, and communication.
204-3 Meaning in the Visual Arts. Designed to provide students a broad understanding of the history of art and its relation and implications to contemporary culture. Emphasis is placed on the relation of art to all disciplines, historical and contemporary.
205-3 Innovation for the Contemporary Environment. A variety of factors affecting creative individual and small group problem solving and its relevance to the contemporary environment are explored in theory and in practice. Purchase of book $4.50. Elective Pass/Fail.
206-3 Music as a Creative Experience. Students experiment with various ways of creating musical sound structures, and engage in active, critical listening, as a means to a better understanding of the nature of musical experience. Not historically oriented. Elective Pass/Fail.
207-2 Aesthetics. The structure and importance of the beautiful in nature, society, personality, and the arts. Elective Pass/Fail.
208-3 Elementary Logic. Study of the basic forms of reasoning, with emphasis on the evaluation of arguments encountered in every-day life. Elective Pass/Fail.
210-3 Introduction to Fiction. Students will read and discuss a variety of American and European short stories and novels. Prerequisite: GSD 120; GSD 101 and GSD 117, 118, or 119, or equivalent. Elective Pass/Fail.
212-3 Oriental Humanities. The literature, music, drama, visual art, and definitive cultural motifs of Asia, with emphasis on China and Japan. Elective Pass/Fail.
214-3 Oriental Philosophies. Examination of world outlooks and life outlooks of major Oriental philosophic traditions: Hinduism, Buddhism, Confucianism, and Taoism. Elective Pass/Fail.
216-3 Types of Eastern Religion. An introductory study of selected African and Eastern religious traditions, emphasizing their meanings for their respective participants, their socio-political contexts, and their contributions to the religious history of civilization. Not open to students who have had GSC 215. Elective Pass/Fail.
217-3 Types of Western Religion. Introductory study of the basic phenomena of religion among American Indians, the ancient Greeks, Jews, Christians, and Moslems, emphasizing socio-political-aesthetic contexts and contemporary relevance. Not open to students who have had GSC 215. Elective Pass/Fail.
218-3 The Epic of Humanity. A world history of human civilizations to the present. Emphasis on the changes and evolutions of societies and cultures leading up to the emerging global village. Prerequisite: sophomore standing.
221-3 Survival of Man. (See GSA 221.)
231-3 Greek Civilization. Women, Men, World: a study of ancient Greeks, their beliefs, values, emotions, literature, history, art, philosophy, against a background of the world they inhabited; i.e., their archaeology and geography. Elective Pass/Fail.
232-3 Roman Civilization. An introduction to the life and culture of ancient Rome by representative readings of Roman drama, history, epic, satire, lyric poetry, epistles, philosophy, against a background of political, social, economic, artistic developments. Elective Pass/Fail.
293-3 to 9 (3 per topic) Studies in Literature. The subjects of this course vary from section to section and from semester to semester. Students should consult the schedule of classes to learn the specific topics for each section each semester. Prerequisite: GSD 120; or GSD 101 and GSD 117, 118, or 119, or equivalent. Elective Pass/Fail.
299e-3 Values, Systems and Society. (See GSB 299e.)
317-3 Recent American Literature. Reading and discussion of American literature since the second World War. Prerequisite: GSD 120; GSD 101 and GSD 117, 118, or 119, or equivalent. Elective Pass/Fail.
325-3 Black American Writers. Poetry, drama, and fiction by Black American writers. Prerequisite: GSD 120; GSD 101 and GSD 117, 118, or 119, or equivalent. Elective Pass/Fail.
330-3 Classical Mythology. An inquiry into the nature of myth and its relevance today while studying selected myths principally of the Greeks and Romans. Elective Pass/Fail.

335-3 The Short Story. Reading and discussion of short stories by American and European authors. Prerequisite: GSD 120; GSD 101 and GSD 117, 118, or 119, or equivalent. Elective Pass/Fail.
340-3 The Western Cultural Tradition. The historical evolution of the visual arts, architecture, and music in the context of society and literature, from ancient Greece to the present. Elective Pass/Fail.
349-3 The Cinema. The cinema as a communicative and expressive medium. Study of film types illustrated by screenings of selected films. Screening fee: $5.00. Elective Pass/Fail.
351-3 Women in Literature. (Same as Womens Studies 325). The course examines the ways in which women are portrayed in literature, especially in twentieth-century novels and short fiction written by women. The course includes films, slides, and guest lecturers. Prerequisite: GSD 101 and 117, 118, or 119; or GSD 120.
362-3 Science and Technology in Western Societies. A study of the development and significance of science and technology in the shaping of western societies since the scientific revolution. Historical, philosophical, and sociological perspectives will be used to understand the relationships between science and technology and between these and other cultural and religious values. See also the related course, GSB 362.
363-3 Philosophy of Science. Introductory survey of the nature and significance of scientific method and its applications. Topics include: the role of value judgments in scientific research, the rationality of scientific method, the relation of science to common sense, religious institutions, and technology. Elective Pass/Fail.
365-3 Shakespeare. Reading and discussion of the major plays. Prerequisite: GSD 120; GSD 101 and GSD 117, 118, or 119, or equivalent. Elective Pass/Fail.
371-2 Evolution of Jazz. Stylistic characteristics of jazz at various stages of its evolution. Societies and cultures from which it derived. Orientation is historical, sociological, and stylistic. Elective Pass/Fail.
390-3 Contemporary American Thought. Introductory survey of the main currents of contemporary philosophy in America and their relevance for legal, political, and educational developments. Elective Pass/Fail.
393-3 to 6 Studies in Literature. The subjects of this course vary from section to section and from semester to semester. Students should consult the schedule of classes to learn the specific topics for each section each semester. A screening fee will be charged for sections that require the showing of films. Prerequisite: GSD 120; GSD 101 and GSD 117, 118, or 119, or equivalent. Elective Pass/Fail.

ORGANIZATION AND COMMUNICATION OF IDEAS (GSD)

Courses

101-3 English Composition. Basic principles of sentence structure, paragraphing, and organization. Purchase of handbook in the range of $4.00 to $5.00.
104-2 Grammar in Language. Description and explanation of the major grammatical categories and structures found in languages, including English. Consideration of the role of grammar in such topics as the nature, origin, acquisition, and variation of language. Course is designed to give students basic concepts of grammar and show the relationship of grammar to language.
106-0 Elementary Algebra. For students with less than one year of high school algebra, this course serves as the prerequisite for the following courses: GSD 107, 112, 113, and Math 114 and 116. Mandatory Pass/Fail.
107-4 Intermediate Algebra. Properties and operations of the number system. Elementary operations with polynomials and factoring. Elementary operations with algebraic fractions. Exponents, roots, and radicals. First and second degree equations and inequalities. Functions and graphing. Systems of equations and inequalities. Exponential and logarithmic functions. Prerequisite: one year of high school algebra or GSD 106.
110-2 Basic Applications of Statistics. The application of elementary statistical techniques in making decisions with respect to problems in everyday life. Examples are taken from such fields as political science, communications, health, consumer economics, psychology, etc. The main topics covered are descriptive statistics, some elements of probability theory, and statistical inference. Credit cannot be received for both GSD 110 and GSD 112. Prerequisite: one year of high school algebra or GSD 106.
112-2 Basic Concepts of Statistics. Illustrates basic concepts of statistical theory. Emphasis on concepts rather than computational techniques. Main topics include data reduction, probability sampling, statistical estimation and decision procedures. Credit cannot be received for both GSD 110 and GSD 112. Prerequisite: one year of high school algebra or GSD 106.
113-2 Introduction to Mathematics. The development of some basic concepts of mathematics and their significance for society. An inexpensive, four-function pocket calculator with automatic constant feature is required. Prerequisite: one year of high school algebra or GSD 106.

117-2 Expository Writing. Practice in the writing of the composition, with emphasis on the logic of organization, demonstration, and expression. Prerequisite: GSD 120, GSD 101 or equivalent.
118-2 Technical Report Writing. An introductory course in technical report presentation both written and oral, in library research methods, and in elementary business correspondence. Prerequisite: GSD 120, GSD 101 or equivalent.
119-2 Creative Writing. Practice in the writing of narrative and poetry. Prerequisite GSD 120, GSD 101 or equivalent.
120-3 Freshman Honors Composition. Some important works in the history of thought by writers such as Plato, Dostoevsky, Freud, and Marx will be read and discussed. The intellectual problems which they raise will become the subjects for essays in which students are required to show mastery of various methods of organizing exposition. This course fulfills the University freshman composition requirement. Prerequisite: top ten percent of the English section of ACT or the qualifying score on the CLEP test.
152-2 Interpersonal Communication. Designed to enable students to better understand and exercise the process of thought formation and expression. Includes both theoretical content and performance sessions which are relevant to the interpersonal communication context.
153-3 Public Speaking. Principles of communication as applied to public settings (speaker/audience). Developing research and speaking skills in the preparation and presentation of various types of messages.
199a-1 Library as an Information Source. Designed to expose undergraduate students to the basic concepts and structures of the library. This would enable students to use their knowledge in completing reading and term paper assignments as well as in gaining confidence for independent work in the library.
199b-3 Computers and Communication. An introduction to the use of the computer as a means of facilitating interpersonal communication. Includes experience in interacting with computers and interacting with other persons with the assistance of computers.

HUMAN HEALTH AND WELL-BEING (GSE)

Courses

Courses numbered 100-106 are basic or beginning level courses; those numbered 114 are intermediate level. The instructor may have the right to evaluate the skill level of the student at the beginning of the course and reassign the student to the proper level or another activity. Most GSE physical education classes will be offered on a variable credit of one or two semester hours; one-hour courses meet two hours per week or equivalent; two-hour courses meet four hours per week or equivalent. All GSE physical education classes are available Elective Pass/Fail. Students will not be allowed to change from a one-hour to a two-hour section or vice versa after the university drop and add period. Students may not earn one semester hour for attending one-half of the sessions scheduled for a two semester hour course.

Appropriate clothing, as determined by instructor, is required for each class.

100-1 to 4 (1 credit each time) Restricted Physical Education. For physically handicapped students as recommended by Health Service. Mandatory Pass/Fail.
101-1 to 24 (1 or 2 credits per activity) Aquatics. **(a)** Beginning Swimming. **(b)** Intermediate Swimming. Prerequisite: 101a or equivalent. **(c)** Diving. **(d)** Skin Diving. Prerequisite: consent of instructor. **(e)** Scuba Diving. Prerequisite: 101d, special sections fee for field trips. **(f)** Lifesaving. Prerequisite: pass swim test first day of class, 500 yards, tread water. **(g)** Canoeing. Prerequisite: pass swim test first day of class, 15 minutes while clothed. **(h)** Synchronized Swimming. Prerequisite: 101b or equivalent. **(i)** Aquacises. **(j)** Water Sports. **(k)** Kayaking. **(l)** Sailing. Elective Pass/Fail.
102-1 to 10 (1 or 2 credits per activity) Fitness. **(a)** Physical Fitness. **(b)** Relaxation. Prerequisite: consent of instructor. **(c)** Weight Control. Prerequisite: consent of instructor. **(d)** Weight Training. **(e)** Yoga. Offered for two credits. Prerequisite: consent of instructor. Elective Pass/Fail.
103-1 to 16 (1 to 2 credits per activity) Dance. **(a)** Square. **(b)** Folk. **(c)** Traditional Social. **(d)** Beginning Contemporary. **(e)** Intermediate Contemporary. Prerequisite: 103d or equivalent. **(f)** Ballet. **(g)** Tap. **(h)** Current Social. Elective Pass/Fail.
104-1 to 34 (1 to 2 credits per activity) Individual and Dual Activities. **(a)** Archery. **(b)** Badminton. **(c)** Bowling. Lane fee and shoe rental required. **(d)** Cross Country. **(e)** Cycling. **(f)**

*Physical education equipment for men includes the following items: T-shirt, shorts, supporter, socks, gym shoes, lock, towel.

Fencing. (g) Fly and Bait Casting. Students furnish own rod and reel. (h) Golf. (i) Gymnastics Apparatus. (j) Handball. Glove and ball required. (k) Horseback Riding. Stable fee, own transportation required. (l) Orienteering. (m) Racquetball. Racquet and ball required. (n) Tennis. (o) Track and Field. (p) Stunts and Tumbling. (q) Wrestling. Elective Pass/Fail.
105-1 to 12 (1 or 2 credits per activity) Team Activities. (a) Basketball (Women or Men). (b) Flag Football (Women or Men). (c) Floor Hockey (Women or Men). (d) Soccer (Women or Men or Co-ed). (e) Softball (Women or Men or Co-ed). (f) Volleyball (Women or Men or Co-ed). Elective Pass/Fail.
106-1 to 6 (1 or 2 credits per activity) Martial Arts. (a) Self Defense. (b) Judo. Judo uniform required. (c) Karate. Karate uniform required. Elective Pass/Fail.
114-1 to 4 (1 or 2 per activity) Intermediate Individual and Dual Activity. (c) Bowling. Prerequisite: 104c or equivalent and consent of instructor. (f) Fencing. Prerequisite: 104f or equivalent and consent of instructor. (n) Tennis. Prerequisite: 104n or equivalent and consent of instructor.
201-2 Healthful Living. Personal and community health. Designed to meet general health education needs and to develop wholesome health attitudes and practices in college students. Elective Pass/Fail.
236-2 Nutritional Ecology. Interaction between people and their environment. Emphasis on nutritional implications of our social, biological, and physical surroundings. Purchase of supplies ranging from $4.00 to $5.00. Elective Pass/Fail.
240-2 Human Relations Between the Sexes. Explores concepts and issues including development of sexuality, selection of a life partner, premarital sex experience, modern morality and the development of sexual mores, marriages, family planning, reproduction, varieties of sexual expression, and sex education. Elective Pass/Fail.

Accountancy (Department)

Accounting is the process of identifying, measuring, and communicating economic information to permit informed judgments and decisions by users of the information. Such information is required and used by parties external to the business and by management within the business.

The curriculum is designed to prepare a student to assume a professional position as a certified public accountant or to join the management team in industry or government. The curriculum provides a basic understanding of all phases of accounting and permits the student to elect courses to prepare for a particular area of interest.

The various state laws prescribe the requirements for certification as a certified public accountant. In general, the accounting curriculum prepares the student educationally to meet these requirements.

Accounting majors, in addition to meeting the College of Business and Administration's graduation requirement of 2.00 grade point average in business-prefix courses taken at Southern Illinois University at Carbondale, must also achieve a grade of *C* or better in accounting-prefix courses taken at Southern Illinois University at Carbondale and offered to satisfy the requirements of the professional business core and the major in accounting.

Accounting (Major, Courses)

Bachelor of Science Degree, College of Business and Administration

General Studies Requirements	45-46
Professional Business Core (see page 74)[2]	47-48
Requirements for Major in Accounting	(6)[1] + 21
Accounting 321, 322, 341, 365, 486	15
Accounting 432, 442, 453, (choose at least one)	3
Accounting 405, 419, 477 (choose one unless two are chosen above)	3
Economics 315 or Finance 325	(3)[1]
Finance 372	(3)[1]

Electives	5-7
Total	120

[1]Hours shown in parentheses are already included in total hours shown for professional business core.
[2]Accounting majors should substitute the combination of Finance 271 and 372 for Finance 370.

Courses

110-3 Applied Accounting for Technical Careers. An individualized program of instruction designed to acquaint students enrolled in the various technical programs of the School of Technical Careers with accounting applications and procedures common to their area of specialization. Students will be able to demonstrate a basic working knowledge of the standard documents and procedures related to their specific area through the use of business working papers and practice set. Open only to students in the School of Technical Careers. Lecture 2 hours. Laboratory 2 hours.
120-3 Applied Accounting for Technical Careers. A continuation of Accounting 110 for selected curriculum areas. Emphasis in this course will be the continued development of knowledge and skills typically involved in small business management, ownership, partnerships, and corporations. New areas of study will include automated data processing, cost estimating, and payroll tax procedures through the use of business working papers and a practice set. Lecture 3 hours. Prerequisite: 110.
210-3 Accounting Principles and Control. Prevalent accounting principles and practices employed in business organizations. Accumulation of data and usefulness of reports are considered. Tax implications of business studied. Not open to students with a major in the College of Business and Administration. No credit given for 210 if credit is claimed for 221. Elective Pass/Fail.
221-3 Accounting I. Basic concepts, principles, and techniques used in the generation of accounting data for financial statement preparation and interpretation. Asset liability and owners' equity valuation and their relationship to income determination. No credit given for 221 if credit is claimed for 210. Prerequisite: sophomore standing.
222-3 Accounting II. A continuation of Accounting I with emphasis on the analysis and interpretation of accounting reports including ratios and funds flow analysis. The use of accounting information for managerial planning, control, and decision making through budgeting, cost and variance analyses, and responsibility accounting. Prerequisite: 221.
301-3 Management Accounting. Emphasizes the use of accounting information for planning, control, and decision making through budgeting models, cost-volume-profit analysis, responsibility accounting, relevant costing procedures and quantitative techniques. Prerequisite: two semesters of accounting and consent of department.
309-2 Individual Income Tax. Preparation of income tax returns. Federal income tax as applied to individuals. No credit given for 309 if credit is claimed for 365. Not open to those with a major in accounting. Elective Pass/Fail.
321-3 Intermediate Accounting I. Current accounting principles and procedures relating to elements of financial reporting. Particular emphasis on current and fixed asset valuation. Prerequisite: a grade of *C* or better in both 221 and 222 or equivalent courses; a grade of *C* or better in 301 if taken; junior standing or consent of department.
322-3 Intermediate Accounting II. Continuation of the study of accounting principles and procedures with emphasis on liabilities, corporate capital, and income determination. Preparation and use of special statements; analysis and interpretation of statements. Prerequisite: 321 with grade of *C* or better.
341-3 Cost Accounting. Interpretation and managerial implications of material, labor, and overhead for job order, process and standard cost systems, cost-volume-profit relationships, direct costing, and budgeting. Accounting for complex process production flows, joint and by-products, spoilage, and scrap. Responsibility accounting and reporting. Prerequisite: 222 with grade of *C* or better and junior standing or consent of department.
365-3 Introduction to Taxation. Background, principles, and procedures for the determination of taxable income as a basis for federal income tax. Particular attention is given those aspects which are at variance with usual accounting treatment in the determination of net income. Includes practice in the methodology of tax solutions. Prerequisite: a grade of *C* or better in both 221 and 222 or equivalent courses; a grade of *C* or better in 301 if taken; junior standing or consent of department.
390-1 to 4 Independent Study in Accountancy. Independent study of specialized aspects of accountancy not available through regularly scheduled courses. Prerequisite: a grade of *C* or better in each of 322, 341, 365, and consent of department.
405-3 Accounting for Public Organizations. Financial and managerial accounting concepts peculiar to the planning and administration of public and quasi-public organizations, such as governmental units, institutions, and charitable organizations. Includes the conventional budgetary-appropriation process, as well as some of the more recent accounting developments related to public decision making. Prerequisite: 222 with grade of *C* or better.

410-3 Accounting Concepts. Interpretation and critical analysis of reports, statements, and other accounting data from the viewpoint of users of financial information. Restricted to MBA or Master of Accountancy students. Prerequisite: enrollment in MBA or Master of Accountancy program or consent of instructor.
419-3 Accounting Information Systems. Accounting systems design and installation. The study of accounting information systems, including computer-oriented systems, with emphasis on the information and control functions of the management decision-making process. Prerequisite: a grade of *C* or better in both 322 and 341; Computer Science 212 or equivalent.
429-3 Taxation of Real Estate Transactions. Study of federal tax laws affecting real estate transactions. Includes tax implications of real estate investments, leasing, disposition by sale, casualty loss or condemnation. Emphasis is on exchanges of real property. Prerequisite: 365 with grade of *C* or better, equivalent, graduate status, or admission to the School of Law.
432-3 Advanced Tax. Study of income tax problems which arise from sole proprietorship, partnership, corporation, estate, and trust types of organization. Brief study of social security, federal and state estate tax and gift tax. Student does research in source materials in arriving at solutions of complicated problems. Prerequisite: 365 with grade of *C* or better.
442-3 Advanced Cost Accounting. Managerial decision making; profit planning and control through relevant costing, return on investment and transfer pricing, determination of cost behavior patterns, analysis of variances, capital budgeting, inventory models, probabilities, statistical methods, and operations research. Prerequisite: 341 with grade of *C* or better.
453-3 Advanced Accounting. Accounting principles and procedures relating to specialized topics, including partnership equity, installment and consignment sales, fiduciaries, international operations, branches, and business combinations. Prerequisite: 322 with grade of *C* or better.
465-3 Estate Planning. A comprehensive study of the various aspects of estate planning, including an analysis of the impact of the federal estate and gift tax laws. In addition, the role of wills, trusts, insurance and other related legal topics necessary to formulate a comprehensive plan is emphasized. The case approach will be utilized wherever feasible. Prerequisite: 432 with grade of *C* or better or graduate standing or admission to law school.
477-3 Current Developments in Accounting Theory. Critical analysis of current developments in accounting theory, especially as reflected in the publications of major accounting associations. Prerequisite: 322 with grade of *C* or better.
486-3 Auditing. Standards, objectives, and procedures involved in examining and reporting on financial statements of business organizations. Prerequisite: a grade of *C* or better in 322 and 365; 341.
489-3 Professional Dimensions of Accountancy. This course is designed to aid the accounting student in identifying and understanding the necessary requirements for attainment of professional status within the accounting field. CPA, CMA, and CIA certification will be covered. In addition, this course will explore the complex set of ethical standards, responsibilities, and legalities intrinsic in both obtaining and maintaining status as a professional. Prerequisite: 322 and 365 with grade of *C* or better.
495-3 Internship. Supervised work experience in professional accounting. Not for graduate credit. Prerequisite: outstanding record in accounting and recommendation of the departmental committee on internship. Mandatory Pass/Fail.
510-3 Managerial Accounting and Control.
511-3 Accounting Theory.
512-3 Auditing Concepts and Methods.
514-3 Controllership.
515-3 Accounting Informations Systems.
516-3 Seminar in Federal Taxation.
519-3 Seminar in Accounting.

Administration of Justice (Major, Courses)

The Bachelor of Science degree with a major in administration of justice meets the career objectives of students interested in law enforcement, corrections, juvenile services, and other roles in social and criminal justice.

Four areas of specialization — law enforcement, correctional program services, correctional management, and juvenile justice and delinquency prevention — have been delineated to give a range of choices suitable for most students preparing for careers in a field of criminal justice. The policy, however, is to fit course re-

quirements to the student's career objectives if none of these specializations are appropriate. In such situations, the student will be required to take the core courses and, under the supervision of the adviser, develop an appropriate battery of courses in lieu of one of the four areas of specialization.

Qualified students may be admitted to the Capstone Program with a major in Administration of Justice. The Capstone Program is explained in Chapter 3.

Field internship placement is an important element in the program and internships are encouraged for qualified students.

Bachelor of Science Degree,
College of Human Resources

ADMINISTRATION OF JUSTICE MAJOR — LAW ENFORCEMENT SPECIALIZATION

General Studies Requirements	45
Requirements for Major in Administration of Justice	42
Core Requirements: 200, 201, 305, 316, 399	15
Law Enforcement Specialization Requirements: 15 hours selected from 301, 302, 303, 304, 403b, 407b	15
Law Enforcement Specialization Electives: 12 hours selected from 202, 403a, 403c, 407a, 415, 492	12
Minor	18
Electives	15
Administration of Justice 390, 395, 490 recommended.	
Total	120

ADMINISTRATION OF JUSTICE MAJOR — JUVENILE JUSTICE AND DELINQUENCY PREVENTION SPECIALIZATION

General Studies Requirements	45
Requirements for Major in Administration of Justice	36
Core Requirements: 200, 201, 305, 316, 399	15
Juvenile Justice and Delinquency Prevention Specialization Requirements: 15 hours selected from 300, 301, 344, 348, 471, 473, 485a, 485b	15
Juvenile Justice and Delinquency Prevention Specialization Electives: 6 hours selected from 304, 390, 395, 407a, 415, 470, 472, 475, 490, 492	6
Minor	18
Electives	21
Total	120

ADMINISTRATION OF JUSTICE — CORRECTIONAL PROGRAM SERVICES SPECIALIZATION

General Studies Requirements	45
Requirements for Major in Administration of Justice	36
Core Requirements: 200, 201, 305, 316, 399	15
Correctional Program Services Specialization Requirements: 15 hours selected from 300, 301, 344, 348, 471, 473, 485a, 485b	15
Correctional Program Services Specialization Electives: 6 hours selected from 390, 395, 407b, 472, 490, 492	6
Minor	18
Electives	21
Total	120

ADMINISTRATION OF JUSTICE MAJOR — CORRECTIONAL MANAGEMENT SPECIALIZATION

General Studies Requirements	45

Requirements for Major in Administration of Justice	36
Core Requirements: 200, 201, 305, 316, 399	15
Correctional Management Specialization Requirements: 15 hours selected from 407b, 471, 472, 475, 485a, 485b	15
Correctional Management Specialization Electives: 6 hours selected from 390, 395, 407c, 470, 490, 492	6
Minor	18
Electives	21
Total	120

Not more than three hours of 395 may be counted toward the major.

Minor

A minor in administration of justice consists of 200 and 201 plus any combination of administration of justice courses to reach a total of 18 semester hours.

Courses

200-3 Introduction to Criminal Behavior. Multidisciplinary study of the etiology and patterning of offender behavior.

201-3 Introduction to Criminal Justice System. Survey of the agencies and processes involved in the administration of criminal justice: The history of English law; the criminal justice process and system, including underlying ideologies, procedures, fundamental legal concepts, and the roles and functions of police, courts, and correctional services.

202-3 Introduction to Enforcement Administration. An introduction to the principles of administration and organization of enforcement agencies including police, security, conservation, and investigation. Prerequisite: 201.

300-3 Assessment of Offenders. Introduction to the procedures and issues of identifying and evaluating individual differences in offenders and among classes of offenders; analysis of typical diagnostic methods. Prerequisite: 200 and 201 or consent of instructor.

301-3 Human Relations in Criminal Justice. Delineation of major interactive patterns among staff members, between staff and clients, and among clients of probation and parole agencies and correctional agencies; introduction to problems of communication, bureaucracy, and leadership. Prerequisite: 200 and 201 or consent of instructor.

302-3 Law Enforcement Services. An overview of the services provided by law enforcement agencies. Emphasis will be placed on the nature, scope, and functions of various agency work units in their provision of services to prevent crime, detect and apprehend offenders, provide regulatory services, and provide specialized community centered services.

303-3 Behavioral Aspects of Investigation. Principles of behavioral science are applied to the recurrent patterns of criminal investigation as a social and fact-finding process; survey of criminalistics. Prerequisite: 302.

304-3 Law Violation, Law Enforcement, and the Community. Examination of behavioral and social control within the local community; problems raised by social change, assessment of particular issues: traffic control, civil disturbances, vice control, and crime prevention. Prerequisite: 302.

305-3 Criminal Law — Introduction to Procedural Aspects and Police Powers. An introduction to the procedural aspects of criminal law pertaining to police powers in connection with the laws of arrest, search and seizure, the exclusionary rule, civil liberties, eavesdropping, confessions, and related decision-making factors. Prerequisite: 200 and 201 or consent of instructor.

316-3 Introduction to Criminal Justice Research. A basic introduction to the scientific perspective, relationship of research and theory, research design, data collection, data analysis, reporting of research and program evaluation. Emphasis on problems peculiar to criminological research. Individual research projects. Prerequisite: 200 and 201 or consent of instructor.

344-2 Drug Use. Types of drugs, drug impact on the American culture, legal and illegal uses of drugs, offenses related to drug use, reaction of the criminal justice system to drugs and drug users, and the treatment and prevention programs coping with drug use. Prerequisite: 200 and 201 or consent of instructor.

348-3 Treatment Modalities. Various treatment methods used throughout the criminal justice system. Explanation and evaluation of various treatment techniques; e.g., behavior modification, transactional analysis and other individual and group therapies.Prerequisite: 200 and 201 or consent of instructor.

390-1 to 4 Readings in the Administration of Justice. In-depth, introductory and advanced readings in areas not covered in other Administration of Justice courses. The student must submit a statement describing the topic and relevant reading materials to the faculty

member sponsoring the student's readings. Prerequisite: 200 and 201 and consent of faculty sponsor.

395-3 to 15 Supervised Field Experiences in the Administration of Justice. Familiarization and direct experience in applied settings. Under supervision of faculty and adjunct staff, the student assumes a student-participant role in the criminal justice agency. Student must submit internship application during the first thirty days of the preceding spring or fall semester. Prerequisite: 200, 201, 12 hours of Administration of Justice courses and consent of department. Mandatory Pass/Fail.

399-3 Senior Seminar. An evaluation of agency policy and practices observed during the student's field experiences, and synthesis with classroom experiences. Emphasis will also be given to planning a professional career. Prerequisite: 395 or consent of instructor.

403-3 to 9 (3 per topic) Enforcement Operations. **(a)** Advanced investigation; **(b)** Enforcement management; **(c)** Enforcement discretion. This course offering provides a broad coverage of law enforcement activities from detailed investigative work through specialized management techniques required. Some sections of the course may be offered only every other year. Prerequisite: **(a)** 303 or graduate status; **(b)** 202 or graduate status or consent of instructor.

407-3 to 9 (3 per topic) Selected Topics in Criminal Law. **(a)** Substantive legal aspects; **(b)** Case preparation and prosecution; **(c)** Jurisprudence and procedures. Provides the framework for the understanding of basic substantive law and jurisprudence. Prerequisite: **(a)** 305 or graduate status; **(b)** 305, 407a, or graduate status.

415-3 Prevention of Crime and Delinquency. Multidisciplinary analysis of the functions, goals, and effectiveness of measures to forestall delinquency and crime. Etiology of delinquent behaviors as related to community institutions such as police, courts, corrections, mental health clinics, schools, churches, and citizen groups. Prerequisite: 200 and 201 or consent of instructor.

416-3 Methods of Criminal Justice Research. The principles of scientific inquiry as applied to the study of the criminal justice system. Overview and examples of project design, evaluative research, methodology and statistical techniques appropriate to criminal justice research. Strongly recommended for students who plan to conduct empirical research in fulfillment of master's thesis requirement. Prerequisite: 200 and 201 or consent of instructor.

417-3 Research Practicum in the Administration of Justice. Application of the principles set forth in 416. Experience in the various phases of an actual research project, including project design, data collection and analysis, and effective communication of results via written reports. Prerequisite: 200 and 201 and 416 or consent of instructor.

470-3 Critical Theory of Criminal Justice. Selected key ideas of law enforcement, courts and corrections, collectively and severally, are established as the foundation for a frank evaluation of the merits of contemporary policies and practices. Prerequisite: 200 and 201 or consent of instructor.

471-3 Principles of Management in the Administration of Justice. Basic principles and techniques of management in law enforcement, correctional, and other criminal justice agencies. Prerequisite: 200 and 201 or consent of instructor.

472-3 The American Correctional System. (Same as Sociology 472.) A survey of the correctional field, covering probation, institutional treatment, and parole. Historical development, organizational structure, program content, and current problems. Prerequisite: 200 and 201 or consent of instructor.

473-4 Juvenile Delinquency. (See Sociology 473.) Prerequisite: 200 and 201 or consent of instructor.

475-3 Management of Government Grants in Criminal Justice: Philosophy, Process and Evaluation. Examines government grant award processes from announcement and review, through award and monitoring, to acceptance of final report. Explores various governmental techniques of support programs in criminal justice — block and direct grants, subsidies, contracts, competitive grants. Preparation of program proposals or grant applications; procedures to secure support and clearance from involved agencies and governmental bodies. Prerequisite: three administration of justice courses or consent of instructor.

485-3 to 6 (3 per topic) Selected Topics in Correctional Program Services. **(a)** Correctional case management. Prepares students to become practitioners, supervisors, and administrators in probation, parole, correctional institutions, and community-based programs in roles traditionally assigned to probation and parole officers, correctional counselors, social workers, and similar titles. Recognizes the importance of the case manager as a planner, mobilizer of resources, advocate, and community organizer. **(b)** Corrections and the community. Traditional correctional functions are redefined to emphasize development of resources of community at large, diversion of convicted offenders from institutions and direct involvement of correctional programs in community affairs. Prerequisite: three administration of justice courses or consent of instructor.

490-1 to 3 Independent Study in the Administration of Justice. Supervised readings or independent investigative projects in the various aspects of crime control, treatment of of-

fenders; and management of programs of law enforcement, courts, and correctional agencies. May be repeated up to a maximum of three credit hours. Prerequisite: 200 and 201 or consent of instructor.
492-2 to 6 (2 to 3 per semester) Contemporary Issues in Administration of Justice. A forum for focusing on special interest topics depending on the availability of staff, visiting professors, and other selected instructional resources to cover a contemporary issue of concern to students and the faculty. May re-enroll for a maximum of six credits. Prerequisite: 200 and 201 or consent of instructor.
500-3 History and Philosophy of Criminal Justice System.
504-3 Criminological Theory.
516-3 to 6 (3 per topic) Seminar in Advanced Criminal Justice Research.
562-3 Fundamental Legal Systems in Criminal Justice.
571-3 Correctional Systems in Criminal Justice.
572-4 Seminar in Criminology.
578-1 to 4 Seminar in Correctional Rehabilitation Counseling.
580-3 Planning for Change in the Administration of Justice.
582-3 Criminal Law and the Correctional Process.
584-3 Seminar in Criminological Program Management.
587-3 Seminar in Law Enforcement.
588-3 to 9 (3 per topic) Selected Topics in Law Enforcement.
590-1 to 3 Supervised Readings in Selected Subjects.
591-3 to 6 Individual Research.
592-3 Advanced Seminar in Administration of Justice.
595A-3 or 6 Supervised Field Work (Internship).
595B-3 or 6 Supervised Field Work (Internship).
599-3 or 6 Thesis.
601-1 to 12 per semester Continuing Research.

Administrative Sciences (Department, Major, Courses)

The Department of Administrative Sciences is concerned with decision making in the allocation of resources toward the achievement of an organization's objectives. The setting of the organization may be government, business, health, or education, but of greater concern is the administrative process itself regardless of where it takes place.

Students are provided with a curriculum drawing on a variety of disciplines each of which contributes certain conceptual tools and techniques useful in improving the decision making performance of the administrator. Beyond the fundamental departmental requirements and those of the College of Business and Administration, a choice of two specialty programs is available.

Management. Administrators make and implement decisions through and with people working together toward the achievement of common societal, organizational, and personal goals. Understanding the organizational and environmental factors that influence individuals and groups, particularly in work settings, is critical to the success of managers and other employees. By choosing appropriate electives from a wide variety of courses, students can emphasize various administration areas, such as general business, health, personnel, organization behavior, organization theory, or small business. Students learn the concepts needed to effectively manage these organizations.

Decision Sciences. The decision sciences rely upon analytical problem-solving approaches to establish resource allocation policies and decisions that will enhance the organization's effectiveness and efficiency. This specialization includes areas of production-operations management, management information systems, and quantitative analysis. By choosing appropriate electives, students can concentrate their preparation in one or more of these areas. Students with a decision science specialization are prepared to enter a wide variety of private or public organizations in either direct management or staff positions.

Bachelor of Science Degree, College of Business and Administration

General Studies Requirements 45-46
Professional Business Core (see page 74) 47-48
Requirements for Major in Administrative Sciences 24-25
Administrative Sciences 341, 361, 352 9
Specializations (Choose one)

Management.
Administrative Sciences 385 or 485 and 431 or 474 6
Choose at least 9 hours from the following (at least 3 hours must be selected from Administrative Sciences courses): Administrative Sciences 345, 350, 385, 431, 456, 457, 474, 479, 485, 489a, Accounting 341, 405, 419, Economics 310, 333, 340, 341, 375, 429, 436, 442, 479, 481, English 291, Finance 421, 475, 476, 480, Geography 306, Geology 478, Industrial Technology 382, 465, 466, Marketing 439, 452, Philosophy 342, 415, Political Science 324, 441, Psychology 307, 309, 421, 461, Sociology 332, 426, 475, Speech Communication 280, 326, 362, 480. Political Science 442, Psychology 322, 323 may also be selected but only if Administrative Sciences 385 is not taken for credit 9

Decision Sciences.
Administrative Sciences 345, 453, and 456 or 483 9
Choose at least 6 hours from the following: Administrative Sciences 385, 456, 457, 483, 489b, Accounting 341, Computer Science 312 or 314f, Finance 475, Marketing 452, Economics 467, Mathematics 486, 488 6

Electives 1-4
Total 120

Courses

170-3 Introduction to Business Administration. Survey of business. General knowledge of the modern business world, the composition and functions of the business organization, as well as business as a social institution. Open only to freshmen and sophomores. Does not satisfy a College of Business and Administration requirement. Elective Pass/Fail.
208-4 Interpretation of Business Data. Uses of business data in policy formulation are discussed. Emphasis is placed on the conversion of raw information into statistics which are useful to the decision maker. Problems stress solution to questions typically raised in businesses. Prerequisite: Mathematics 116 or 139 or equivalent. Elective Pass/Fail.
300-3 Internship in Administrative Sciences. Supervised work experience that relates to the student's academic program and career objectives. Not repeatable for credit. Prerequisite: junior standing and consent of department. Mandatory Pass/Fail.
301-3 Management and Supervision. Functions of management and the requisites for effective supervision are emphasized by way of application to practical situations. For non-business majors who expect to assume supervisory responsibility where successful allocation and evaluation of human resources is necessary. Not open to students enrolled in the College of Business and Administration. Credit not available for both 301 and 304. Prerequisite: GSB 202, junior standing or consent of department. Elective Pass/Fail.
302-3 Administrative Communications. Creating and managing interpersonal administrative communications including the analysis, planning, and practice of composing different types of internal and external communications in various administrative and business contexts.
304-3 Organization Administration. Basic concepts of the administrative process are considered with emphasis on executive action to develop policy, direction, and control based on traditional and behavioral science approaches to decision making. Prerequisite: GSB 202 or concurrent enrollment or equivalent and junior standing or consent of department. Elective Pass/Fail.
318-3 Production-Operations Management. An introduction to the design, operation, and control of systems or processes by which materials, labor, and capital are combined in an organized way with the objective of producing goods or services. Topical coverage includes

the systems concept, planning, forecasting, job design, location, layout, logistics, scheduling, and production, inventory, quality, labor, and cost control. Prerequisite: 208, Mathematics 117 or 140, Computer Science 212 or Electronic Data Processing 217 or equivalent, junior standing or consent of department. Elective Pass/Fail.

341-3 Organizational Behavior I. The study of human problems in administration including the analyses of individual, group, and inter-group relations under a broad range of organizational settings. Theory and case analyses. Prerequisite: 208, and 304 and junior standing or consent of department. Elective Pass/Fail.

345-3 Introduction to Management Systems. Integrates topics of management and organization, information, computers, and the systems approach. Emphasizes planning, design, and implementation of information systems to aid management decision making. Application of computer techniques to develop, manipulate, and analyze system models. Prerequisite: 318, Computer Science 212 or Electronic Data Processing 217 or equivalent, and junior standing or consent of department. Elective Pass/Fail.

350-3 Managing the Small Business. Identification of small business, its importance and relationship to the United States economy and the opportunities and requirements unique to operation and management. Personal characteristics, interpersonal relationships, organizational systems, and decision-making processes are examined for their contribution to the success or failure of the firm. Prerequisite: 304 or consent of department. Elective Pass/Fail.

352-3 Management Science I. An introduction to mathematical model building in organizations and the solution techniques commonly used to solve such models. Topical coverage includes decision theory, mathematical programming, inventory models, queueing models and simulation. Prerequisite: 208, Mathematics 117 or 140 or equivalent and Computer Science 212 or equivalent, junior standing or consent of department.

361-3 Research Methods in Administration. Design of research to assist managerial decision making. concepts, tools, sources, and methods of research. Planning, collecting, organizing, evaluating, and presenting research data. Prerequisite: 304, 208, GSD 101 and junior standing or consent of department. Elective Pass/Fail.

385-3 Personnel Management. An introduction to the development, application, and evaluation of policies, procedures, and programs for the recruitment, selection, development, and utilization of human resources in an organization. Prerequisite: 304 or equivalent, introductory statistics, and junior standing or consent of department. Elective Pass/Fail.

402-1 Strategies for Seeking Employment. The job placement process and the work environment from the viewpoint of the applicant. Emphasis on career planning, manpower analysis, placement and interviewing techniques with a stress on the transition from the academic community to the business and professional environment. Not offered for graduate credit. Prerequisite: senior standing or consent of department. Mandatory Pass/Fail.

431-3 Organizational Behavior II. The study of modern theories of complex organizations. Particular emphasis is placed on open-systems perspectives of administrative theory and the adaption of the organization to a changing environment. Prerequisite: 341 and junior standing or consent of department. Elective Pass/Fail.

453-3 Management Science II. A continuation of 352. Mathematical model building in organizations and solution techniques commonly used to solve such models. An extension of topics in deterministic and probabilistic modeling introduced in 352. Prerequisite: 352, junior standing or consent of department.

456-3 Management Systems Applications. Investigation of selected systems and computer based methods for aiding management decision-making. Topics include systems analysis applications, simulation, and decision models. Prerequisite: 345, 352 or 452 and junior standing or consent of department. Elective Pass/Fail.

457-3 Advanced Management Systems. Survey of systems theory and models related to management and administration of a variety of organizations. Topics include systems analysis, diagnosis, and synthesis; hierarchies; information and control; and general systems theory. Prerequisite: 345, 352 or 452, 341, junior standing or consent of department. Elective Pass/Fail.

474-3 Management Responsibility in Society. Analysis of the cultural, social, political, economic, and immediate environment of the organization. Particular emphasis is given to the manner in which the manager adapts to and is influenced by the environment and its conflicting demands. Prerequisite: senior standing or consent of department. Elective Pass/Fail.

479-3 Problems in Business and Economics. (Same as Economics 479.) Application of economic theory and tools of analysis to practical business problems. Cost and demand functions, and forecasting are analyzed from a policy standpoint. Prerequisite: 208 or Economics 308, Economics 215, Marketing 304, and junior standing or consent of department. Elective Pass/Fail.

481-3 Administrative Policy. Development of organizational strategies and policies within environmental and resource limitations. Emphasis upon the application and in-

tegration of basic principles from all areas of business by case problem analysis, simulation exercises, and group participation. Not for graduate credit. Prerequisite: senior standing, 304, 318, Finance 320, Marketing 304, or equivalent. Elective Pass/Fail.

483-3 Advanced Production-Operations Management. Internal problems of managerial control of production including recent developments in theory and techniques; case material will be utilized for the development of analytical ability. Cost of field trips ($5) must be incurred by the student. Prerequisite: 318, 352 or 452, junior standing or consent of department. Elective Pass/Fail.

485-3 Organizational Development. Analysis of problems in personnel management with emphasis on current trends and techniques. Case problems, special reports, and experiential approaches are used as a basis for examining ways of using an organization's human resources to best advantage. Prerequisite: 341, junior standing or consent of department Elective Pass/Fail.

489-6 (3, 3) Seminar in Administrative Sciences. Investigation of selected special or advanced topics in seminar format. Topics may include, but not limited to: management responsibility in society, wage and salary administration, health services administration, data processing management, current issues in management, etc. **(a)** Management, **(b)** Decision Sciences. May be taken singly. Prerequisite: consent of department chairperson and instructor. Elective Pass/Fail.

491-1 to 6 Special Topics in Administration. Utilizes special faculty resources to enable individually, the exploration of an advanced area of study through research by means of data analysis and/or literature search. Prerequisite: consent of department chairperson and instructor.

Aerospace Studies (Department, Courses)

Aerospace Studies is a voluntary course sequence leading to a commission as an officer in the United States Air Force. When commissioned, all officers must have at least a baccalaureate degree; hence completion of the program is contingent upon maintaining satisfactory progress toward graduation. Enrollment in the first two years (general military course) is unrestricted and no military obligation is incurred. Special students who do not intend to obtain a commission are welcome.

Acceptance into the last two years (professional officer course — POC level) is competitive and requires qualification on the Air Force Officer Qualifying Test and a physical examination. For some officer candidates, the field of concentration must be related to an officer career specialty in the air force. Students in the professional officer course do incur a military obligation. They are paid a monthly tax-free subsistence allowance. Graduate students who have two years remaining at the University, not counting summers, are eligible.

Qualified students may enter directly at the POC level without completing the general military course by attending a six-week field training course during the summer prior to entrance. Four year students attend a four-week field training course. Field training is conducted at air force bases and students are paid while attending.

Students are required to complete one three-hour course in mathematical reasoning as part of the program.

Courses

101-1 United States Air Force. Evolution of modern aerospace power and concepts on which it was developed. Introduction to aerospace support forces. Includes airlift, research and development, logistics, and education and training. One lecture and one laboratory per week.

102-1 Aerospace Offensive and Defensive Forces. Introduction to U.S. general purpose and strategic offense forces, and the constraints involved in the use of modern weapons. Introduction to concepts, organization, equipment, and procedures involved in strategic defense of the United States. One lecture and one laboratory per week.

201-1 The Development of Air Power I. History of manned flight from pre-aircraft to end of World War II. Develops the themes of doctrine, technology and evolution of aircraft, and U.S. Air Force. One lecture and one laboratory per week.

202-1 The Development of Air Power II. History of United States Air Force from separate military department status into early 1970's. Highlights the versatility of air

power and the changing role of machines, people, and tactics in air warfare. One lecture and one laboratory per week.

258-4 GMC Equivalency. Work experience credit for 101, 102, 201, and 202. This credit will be evaluated by the head of the Aerospace Studies Department. Prerequisite: satisfactory completion of the academic phase of the six-week field training course for AFROTC two-year applicants.

301-4 Management and Leadership I. Student relates current management and leadership theory to problems faced by middle managers in a large bureaucracy, the United States Air Force. Examines individual motivation, organization dynamics, performance appraisal, and decision making. Practices writing and speaking styles appropriate to a large organization. Three one-hour lectures and two one-hour laboratories per week. Prerequisite: satisfactory completion of the GMC, six weeks field training, or consent of instructor. Non AFROTC members may enroll with instructor consent and may elect Pass/Fail.

302-4 Management and Leadership II. Continuation of 301. Students examine traditional and modern theories of leadership to define their own roles as leaders. Examine value conflict and conflict resolution for the middle manager. Three one-hour lectures and two one-hour laboratories per week. Prerequisite: 301 or consent of instructor. Non AFROTC members may enroll with instructor consent and may elect Pass/Fail.

401-4 Formulation of Defense Policy. Student explores the dynamics of formulating and implementing American defense policy. Examines international political trends, fundamental causes of inter-state conflict, and domestic and international constraints which restrict the options available to American defense policy makers. Three one-hour lectures and two one-hour laboratories per week. Prerequisite: 302 or consent of instructor. Non AFROTC members may enroll with instructor consent and may elect Pass/Fail. Not for graduate credit.

402-4 Civil-Military Relations. Student analyzes crucial questions about the role and functions of the military officer. Study military law and the law of armed conflict as they apply to the junior officer. Examines contemporary issues including social values and attitudes toward the military. Three one-hour lectures and two one-hour laboratories per week. Prerequisite: 401 or consent of instructor. Non AFROTC members may enroll with instructor consent and may elect Pass/Fail. Not for graduate credit.

African Studies (Minor)

African area studies is available through an interdisciplinary minor, involving courses in anthropology, Black American studies, geography, history, linguistics, political science, and religious studies. Each of these departments has one or more faculty who specialize in Africa and who are interested in assisting students wanting to study about Africa. The requirements for the African studies minor are listed below.

Minor

The African studies minor consists of 15 hours with 9 hours in required core courses and 6 hours of electives.

Required Core Courses: 9 hours selected from Anthropology 470A, Black American Studies 225, 314a, b, History 387a, b, Political Science 465.

Electives: 6 hours selected from any courses not used as part of the core or Anthropology 420-3 (only when an African language is studied), Geography 365, Linguistics 450-3 (only when African languages are studied), Religious Studies 333, or 2-3 hours of reading courses on Africa sponsored by any of the departments listed above or below.

Suggested related courses which do not count toward the minor are: Agribusiness Economics 442, 443, Anthropology 410H, 470F, Black American Studies 311a, b, Economics 322, History 362a, b, or Political Science 452.

Agribusiness Economics (Department, Major, Courses)

Instruction, research and consultation are provided in farm management, agribusiness management, agricultural credit, agricultural prices, agricultural marketing, cooperatives and agricultural policy.

This curriculum also permits the student to select additional courses in agricultural production and/or related fields of economics, business, political science, etc.

There is a 40-hour option and a 32-hour option. The 40-hour option provides a broader training in agriculture. The 32-hour option provides additional work in business and economics.

For a number of courses taught in the department, there will be an additional charge for field trips, laboratory manuals or supplies.

Bachelor of Science Degree, School of Agriculture

	OPTIONS 40 HOURS		32 HOURS	
General Studies Requirements		46		46
GSA 106 and 115 or equivalent	6		6	
GSD 101, 107[1], 118, 153	12		12	
Requirements for Major in Agribusiness Economics		54		54
Agriculture Requirements	(40)		(32)	
Agribusiness Economics 350 or 360, 351, 362, 450 or 461	12		12	
Agribusiness Economics 204	3[2]		3[2]	
Other Agribusiness Economics	8		8	
Animal Industries	3		3	
Plant and Soil Science	3		3	
Electives in Agriculture	11		3	
Business and Economics Requirements	(14)		(22)	
Economics 214, 215	6		6	
Accounting and Quantitative Methods	8[3]		8[3]	
Other business and economic courses	0		8	
Electives		20		20
Total		120		120

[1]Mathematics 110a, b or Mathematics 111 are highly recommended.
[2]Agribusiness Economics 204 substitutes for GSB 211.
[3]Courses in accounting, computer science and statistics or equivalent, in two fields.

Minor

A minor in agribusiness economics is offered. A total of 16 hours within the department is required. A counselor within the department must be consulted before selecting this field as a minor.

Courses

204-3 Introduction to Agricultural Economics. Agriculture in local and national economy; distribution; size and organization of the farm business units; policies affecting agriculture. Elective Pass/Fail.

257-1 to 10 Work Experience. Credit for on-campus work experience through a cooperative program developed between the department and the Office of Student Work and Financial Assistance. Prerequisite: consent of chairperson. Mandatory Pass/Fail.

258-1 to 30 Past Work Experience. Credit for career related employment based on the evaluation of the documentation of this experience by the Department of Agribusiness Economics. No grade for past work experience. Prerequisite: consent of chairperson.

302-2 Country Living Management and Information. Managing a small acreage as an avocation. Types of decision problems and sources of information. Elective Pass/Fail.

340-3 Economic Analysis of Food and Rural Development Policies. An economic analysis of the structure, problems, and alternative public policies of the food production industry. The dimensions and causes of rural poverty and alternatives for rural development. Prerequisite: 204 or consent of instructor. Elective Pass/Fail.

350-3 Farm Management. Efficient organization and management of a farming operation. Emphasis on crop and livestock selection, management of farm resources, farm budgets and records analysis, and farm leases. Student will incur field trip expenses not to exceed $5.00. Prerequisite: 204 or one course in economics. Elective Pass/Fail.

351-3 Financial Management in Agriculture. Analysis of the capital structure of agriculture and sources of capital. Credit analysis of agribusiness firms using financial statements, firm growth, capital budgeting, and tax considerations. Prerequisite: 204 or equivalent. Elective Pass/Fail.
359-1 to 6 Intern Program. Supervised work experience program in either an agricultural agency of the government or agribusiness. Prerequisite: junior standing or consent of instructor. Mandatory Pass/Fail.
360-3 Cooperatives and Agribusiness Management. Problems and practices in agribusiness operations including forms of organization, alternative organization and structure impacts on decision making, tools of decision making, financial analysis and methods of improving the effectiveness of the marketing system. Prerequisite: 204 or equivalent. Elective Pass/Fail.
361-2 Distribution in Agribusiness. The nature of agribusiness distribution, opportunities to improve the effectiveness of the distribution system through an understanding of the function involved. Prerequisite: 204 or equivalent. Elective Pass/Fail.
362-3 Marketing and Pricing Agricultural Products. Institutional arrangements in marketing agricultural products. Market structure, marketing costs, and alternative methods of pricing agricultural products are also examined. Prerequisite: 204 or equivalent. Elective Pass/Fail.
381-1 to 4 (1, 1, 1, 1) Agricultural Seminar. Discussion of special topics and/or problems in the field of agribusiness economics. Prerequisite: junior standing and consent of department.
388-1 to 16 (1 to 8 per semester) International Studies. Course work undertaken as part of an approved University residential study program abroad. May be taken for a maximum of eight semester hours per semester and may be repeated for a maximum of 16 semester hours. Prerequisite: major department or program approval.
390-1 to 4 Special Studies in Agribusiness Economics. Assignments involving research and individual problems. Field trips. Prerequisite: consent of chairperson.
391-1 to 4 Honors in Agribusiness Economics. Completion of honors paper or comparable project under the supervision of one or more faculty members. Subject matter depends upon the needs and interests of the student. Prerequisite: junior, GPA 3.0 with a 3.25 in major; approval of staff member, department chairperson. Elective Pass/Fail.
401-3 Agricultural Law. Relations of common-law principles and statutory law to land tenure, farm tenancy, farm labor, farm management, taxation, and other problems involving agriculture. Prerequisite: junior standing or consent of instructor. Elective Pass/Fail.
402-1 to 6 Problems in Agribusiness Economics. Designed to improve the techniques of agribusiness economics workers through discussion, assignment, and special workshops on problems related to their field. Emphasis will be placed on new innovative and currently developed techniques for the field. Prerequisite: consent of chairperson.
440-3 Land Resource Economics. (Same as Economics 471.) The use of land as an economic variable in production of goods and services; land markets; group versus individual conflicts; and land utilization as related to institutional arrangements. Prerequisite: 204, GSB 211 or consent of instructor. Elective Pass/Fail.
442-2 Agricultural Development in Emerging Countries. Principles and practices in improving agriculture in areas with limited capital and low levels of technology. Prerequisite: 204 or GSB 211. Elective Pass/Fail.
443-2 Marketing Practices and Problems in Developing Countries. Types of markets, assembly of products, storage, transportation, quality determination, and pricing practices which are peculiar to the developing countries. Market organization and practices for the major export products and the principal domestic foods and fibers in such countries. Methods of progressively improving such markets. Prerequisite: 204 or equivalent. Elective Pass/Fail.
450-3 Advanced Farm Management. The role of the farm manager in credit institutions, professional farm management service, and the self-employed farmer will be emphasized. The concepts of farm marketing, farm finance and decision making as integrated in the management process will be central. Field trips not to exceed $25. Prerequisite: 350 or equivalent. Elective Pass/Fail.
451-2 Farm Real Estate Appraisal. Principles and practices of farm real estate appraisal. Application of capitalization, market, and cost approaches for estimating market value. Understanding of special valuation methods used for buildings, insurance, assessments, loans, and condemnation. Field trips not to exceed $10. Prerequisite: 350 or consent of instructor. Elective Pass/Fail.
453-3 Advanced Farm Planning Techniques. Application of linear programming to farm planning including enterprise selection, resource allocation, and least cost ration formulation. Farm decision making under uncertainty and analysis of farm expansion alternatives. Prerequisite: 350 or consent of instructor. Elective Pass/Fail.
460-3 Agricultural Prices. Measurement and interpretation of factors affecting agricultural prices. Construction of index numbers, trend analysis, seasonal and cyclical price movements and the measurement of relationships between price and other variables. Prerequisite: 362 or equivalent.

461-3 Agriculture Business Management. Function of top management in agribusiness, such as: determining objectives, developing sound and consistent policies for achieving objectives; organizing the administrative personnel to carry out the plans; guiding and maintaining the administrative organization. Prerequisite: 360.
462A-1 Agricultural Marketing Problems and Practices — Livestock. Problems and their solutions in marketing livestock. Prerequisite: 362. Elective Pass/Fail.
462B-1 Agricultural Marketing Problems and Practices — Field Crops. Problems and their solutions in marketing field crops. Prerequisite: 362. Elective Pass/Fail.
462C-1 Agricultural Marketing Problems and Practices — Dairy and Poultry. Problems and their solutions in marketing dairy and poultry products. Prerequisite: 362. Elective Pass/Fail.
462D-1 Agricultural Marketing Problems and Practices — Horticultural Crops. Problems and their solutions in marketing horticultural crops. Field trips cost $5. Prerequisite: 362. Elective Pass/Fail.
463-2 Commodity Futures Market. The mechanics of futures market trading, commodity charting, technical and fundamental trading approaches, hedging, and risks in commodity speculation will be emphasized. The history, development, and importance of the commodity future market will be reviewed and the role of participants and supporting institutions will be presented. Prerequisite: junior or senior standing. Elective Pass/Fail.
500-4 (2, 2) Agribusiness Economics Research Methodology.
551-3 Resource Allocation in the Agribusiness Firm.
552-3 Problems and Policies of the Agricultural Sector.
581-1 to 4 Seminar in Agribusiness Economics.
588-1 to 8 International Graduate Studies.
590-1 to 4 Readings.
593-1 to 4 Individual Research.
599-1 to 6 Thesis.
601-1 to 12 per semester Continuing Research.

Agricultural Education (Major)

In this program a student will receive the technical and professional training needed to teach applied biological and agricultural occupations in secondary schools, serve in extension, or be employed in industry. A student majoring in agricultural education may specialize in one of the following areas: agricultural production, agricultural supplies and services, agricultural mechanics, agricultural products, ornamental horticulture, agricultural resources, forestry, and other areas of agriculture in specially designed curricula.

Bachelor of Science Degree, College of Education or School of Agriculture

AGRICULTURAL EDUCATION MAJOR — SECONDARY TEACHING CERTIFICATE

General Studies Requirements	46-47
GSA 106, 115	6
GSB 212 or 300, and 202	6-7
GSD 101, 107, 118, 153	12
GSE 201 and two hours of physical education activity courses	4
Requirements for Major in Agricultural Education	40
Agribusiness Economics	3
Agricultural mechanization courses	4
Agricultural Education and Mechanization 311 and one of the following: 364, 411, 414	7
Animal Industries	3
Plant and Soil Science	3
Specialty in Agriculture and agriculture electives	20
Professional Education Requirements	25
See Teacher Education Program, page 77.	
Electives	8-9
Total	120

Agricultural Education and Mechanization

(Department, Major, Courses)

The Agricultural Education and Mechanization major includes two specializations: agricultural information and agricultural mechanization.

The agricultural information specialization is intended for those students who plan to be involved in agricultural education programs in extension, post-secondary educational institutions and industry. Persons desiring to be certified for public school secondary teaching should follow the Agricultural Education major.

The agricultural mechanization specialization permits students to pursue work in agricultural power and machinery: agricultural electrification, agricultural structures, soil water conservation; agricultural materials handling and processing and basic construction processes.

Qualified candidates for the Capstone Program are accepted in the department.

For a number of courses taught in the department, there will be additional charges for field trips, laboratory manuals or supplies.

Bachelor of Science Degree, School of Agriculture

AGRICULTURAL EDUCATION AND MECHANIZATION MAJOR – AGRICULTURAL INFORMATION SPECIALIZATION

General Studies Requirements		46
GSA 115 or substitute, GSA 106 or chemistry equivalent required		
GSB 202 required		
GSD 101, 107, 153 required, 118 recommended		
Requirements for Major in Agricultural Education and Mechanization		40
Agribusiness Economics	6	
Agricultural Education and Mechanization		
Agricultural education courses: any two of the following: 364, 411, 414	6	
Agricultural mechanization courses	6	
Animal Industries	6	
Plant and Soil Science	6	
Electives in Agriculture	10	
Electives		34
Total		120

AGRICULTURAL EDUCATION AND MECHANIZATION MAJOR – AGRICULTURAL MECHANIZATION SPECIALIZATION

General Studies Requirements		46-47
GSA 115, 106 and School of Technical Careers 107-4, or equivalent	9-10	
GSD 101, 118 recommended, 107 or trigonometry, 153	12	
Requirements for Major in Agricultural Education and Mechanization		48
Agricultural Education and Mechanization courses selected from 373, 376, 377, 378, 379, 472, 473, 474, and 475 and totaling	18	
Specialization supporting courses from agricultural education and mechanization, School of Technical Careers, College of Engineering and Technology and College of Business and Administration	6	
Agribusiness Economics	3	
Animal Industries	3	
Plant and Soil Science and/or Forestry	6	
Electives in Agriculture	12	
Electives		25-26
Total		120

Minor

A minor in Agricultural Education and Mechanization is offered. A total of 16 hours within the department is required. A counselor with the department must be consulted before selecting this field as a minor.

Courses

170-1 to 4 (1, 1, 1, 1) Introductory Agricultural Mechanization. A modular course providing an introduction to: **(a)** agricultural power and machinery; **(b)** agricultural electrification and application; **(c)** agricultural structures; **(d)** soil and water management. Each module one hour credit. A student may enroll in any or all modules.
257-1 to 10 Work Experience. Credit for on-campus work experience through a cooperative program developed between the department and the Office of Student Work and Financial Assistance. Prerequisite: consent of chairperson. Mandatory Pass/Fail.
258-1 to 30 Past Work Experience. Credit for career related employment based on the evaluation of the documentation of this experience by the Department of Agricultural Education and Mechanization. No grade for past work experience. Prerequisite: consent of chairperson.
311-4 (2, 2) Agricultural Education Programs. **(a)** Nature and scope of a total vocational agriculture program involving hands-on activities with secondary vocational agriculture programs. **(b)** An in-depth study into the teaching methods and integral parts of the total vocational agriculture program. This involves adult work, FFA youth activities, program standards, and professionalism.
359-1 to 6 Intern Program. Supervised work experience in either an agricultural agency of the government or agribusiness. Prerequisite: junior standing or consent of instructor. Mandatory Pass/Fail.
364-3 Leadership of Youth and Peer Groups. (SeeVocational Education Studies 364.)
371-2 Skills in Home Maintenance and Repair. Common home related maintenance and repair activities. Units include safety and developing the home shop; construction skills related to masonry, concrete, plumbing and painting; basic electricity and practical home wiring; and lawn, garden and recreational equipment maintenance and operation.
373-3 Agricultural Production Machinery. A course in selection capacities, application, performance, operation, maintenance, adjustments, and calibration of agricultural production machinery.
376-2 Applied Graphics. Fundamentals of interpreting graphic illustrations, sketching, drawing and lettering in agriculture, forestry, and landscape design.
377-2 Surveying and Planning. Surveying, mapping, land measurement, contouring, planning waterways and terraces and other water control structures used in the development and conservation of forests and agricultural land.
378-3 Agricultural Shop and Construction Processes. Principles of shop organization and safety; tool and equipment utilization as related to hot and cold metals, woodworking, plumbing, and concrete construction.
379-3 Small Engines and Electricity in Agriculture. A basic agricultural power course emphasizing principles, maintenance, and overhaul of small engines. The course also includes electrical circuit planning, practical wiring, a study of electric motors, and basic electrical controls.
381-1 to 4 (1, 1, 1, 1) Agricultural Seminar. Discussion of special topics and/or problems in the field of agricultural education and mechanization. Prerequisite: junior standing and consent of department.
388-1 to 16 (1 to 8 per semester) International Studies. Course work undertaken as part of an approved University residential study program abroad. May be taken for a maximum of eight semester hours per semester and may be repeated for a maximum of 16 semester hours. Prerequisite: major department or program approval.
390-1 to 4 Special Studies in Agricultural Education and Mechanization. Assignments involving research and individual problems. Field trips. Prerequisite: consent of chairperson.
391-1 to 4 Honors in Agricultural Education and Mechanization. Completion of honors paper and comparable project under the supervision of one or more faculty members. Subject matter depends upon the needs and interests of the student. Prerequisite: junior, GPA 3.0 with a 3.25 in major; approval of staff member, department chairperson. Elective Pass/Fail.
402-1 to 12 (1 to 6 per topic) Problems in Agricultural Education and Mechanization. **(a)** Agriculture Education, **(b)** Agriculture Mechanization. Designed to improve the techniques of agricultural education and mechanization workers through discussion, assignment, and special workshops on problems related to their field. Emphasis will be placed on new innovative and currently developed techniques for the field. A limit of six hours will be counted toward graduation in master's degree program. Prerequisite: consent of chairperson.

411-3 Program Development in Agricultural Extension. Principles and procedures in developing extension programs with emphasis on program determination and methods. Prerequisite: junior standing.
412-2 Principles of Agriculture Mechanization. Theory and use of educational materials and devices adaptable to the needs and interests of educators involved in agricultural mechanization laboratories.
414-3 Adult Education Procedures, Methods, and Techniques. Determining adult education needs and interests of the community. Securing and organizing the information needed for adult education programs and planning teaching activities.
415-3 Beginning Teacher Seminar. The application, in the professional field setting of principles and philosophies of the education system. Includes application of principles of curricula construction, programming student and community needs. Prerequisite: consent of instructor.
472-3 Agricultural Tractors and Engines. Tractor performance and selection, principles of operation, maintenance analysis, and tuneup of multi-cylinder farm type internal combustion engines.
473-2 Advanced Agricultural Electricity. Application of electricity to agricultural problems. An emphasis on principles of electrical distribution on the farm and/or the agribusiness operation. Planning the efficient usage of electricity. Prerequisite: 379 or equivalent.
474-2 Advanced Agricultural Structures. A study of design characteristics applicable to farm structures. Emphasis is given to economics, utilization, environment, materials, and types of structures. Plans and drawings of farmstead layout, service buildings, and rural residential buildings are made. Prerequisite: 378 or equivalent.
475-3 Agricultural Materials Handling, Processing, and Storage. Arrangement of systems for animal waste disposal, feed handling and processing, and storage of agricultural products. Prerequisite: 378 or 379 or 473 or 474.
500-4 (2, 2) Agricultural Education and Mechanization Research Methodology.
525-3 Program Development in Agricultural Education.
526-3 Professional Development in Agricultural Education.
571-3 Current Problems and Research in Agricultural Power and Machinery.
581-1 to 8 (1 to 4 per topic) Seminar.
588-1 to 8 International Graduate Studies.
590-1 to 4 Readings.
593-1 to 4 Individual Research.
595-1 to 4 Agricultural Occupation Internship.
599-1 to 6 Thesis.
601-1 to 12 per semester Continuing Research.

Agriculture (Courses)

Courses

110-3 Agriculture and Society. An introductory and general inquiry about the role and characteristics of farm and off-farm agriculture in our non-agrarian society. To acquaint students with important aspects of the various fields of agriculture and agrarian relationships to our society.
259-2 to 40 Technology in Agriculture. For credit earned in technical or occupational proficiency above the high school level (by departmental evaluation).
333-2 Agriculture and Forestry Environmental Problems. An overview course directed at the environmental problems of food, fiber and forest products, production and processing and their potential solutions. A team taught course within the School of Agriculture.
388-1 to 16 (1 to 8 per semester) International Studies in Agriculture. Course work undertaken as a part of an approved University residential study program abroad. May be taken for a maximum of eight semester hours per semester and may be repeated for a maximum of 16 semester hours. Prerequisite: School of Agriculture or department within the school approval.
401-3 Fundamentals of Environmental Education. (Same as Forestry 401 and Recreation 401.) A survey course designed to help education majors develop an understanding of environmental problems and an awareness of how these types of problems can be handled both inside and outside the classroom. Prerequisite: ten hours of biological science, or ten hours of recreation and/or education, or consent of instructor.
423-3 Environmental Interpretation. (Same as Forestry 423 and Recreation 423.) Principles and techniques of natural and cultural interpretation. Two hours lecture, three hours laboratory. Approximately $10 cost for field trips. Prerequisite: ten hours biological science or ten hours of recreation.

Agriculture, General (Major)

General agriculture is an excellent choice of agricultural major for the students who wish a flexible program which permits them ample selection of courses to satisfy their interests and abilities, as well as to attain their educational and professional goals. The minimum requirements give students a broad background in agriculture; the unusual freedom in selecting courses to fulfill these minimum requirements as well as the large number of free electives permit students to individualize their educational experience.

Students gain basic preparation for many of the agricultural careers: general farming, agricultural services, agricultural extension, agricultural communications, agricultural business, agricultural industry, and agricultural production. Two specializations within the general agriculture major, environmental studies and country living, are designed to reflect current emphases and interest in agriculture.

Production Agriculture Specialization. Students gain basic preparation for many of the agricultural careers: general farming, agricultural services, agricultural extension, agricultural communications, agricultural business, agricultural industry, and agricultural production. For students whose interest is production agriculture, typical courses which are used to fulfill the minimum course distribution among the three departments in which work is required are Agribusiness Economics 204, 350, Agricultural Education and Mechanization 373, Animal Industries 121, 122, 215, and 315, Plant and Soil Science 200, 240, and 300a.

Environmental Studies Specialization. In addition to serving as preparation for entry into the traditional agricultural and agricultural related occupations, students now find that the general agriculture major, with the study of soils, crops, forests, animals and their interrelatedness, is an excellent and practical way to study environmental and ecological problems. Choosing their agriculture and elective courses with this emphasis in mind permits students to specialize in environmental studies within the major, general agriculture. For this specialization, the general agriculture requirements remain the same; however, to fulfill the requirements, students must complete as agriculture or elective courses, thirty hours from among Agriculture 333, 401, 423; Agribusiness Economics 440; Animal Industries 455; Forestry 301, 312, 331, 409, 430, 453; Plant and Soil Science 328A, 346, 420, 468; Economics 333; Thermal and Environmental Engineering 314; Political Science 325. Substitute courses may be approved through the office of the dean of the School of Agriculture.

Country Living Specialization. This specialization is available in the general agriculture major. This area of study provides the student with a background to more effectively manage and enjoy an acreage in the country. Suggested courses are Agribusiness Economics 302; Agricultural Education and Mechanization 371; Animal Industries 121, 201, 319; Forestry 341; Plant and Soil Science 238, 325, 328, 346. The selection of these courses or others in the School of Agriculture should be made by the student jointly with a staff member in the school.

Bachelor of Science Degree, School of Agriculture

General Studies Requirements	48
Botany 200, Chemistry 140A, Zoology 118	11
GSB 211 or Agribusiness Economics 204	3
Elective GSB[1]	6

GSC[1]	9	
GSD 101, 107, 153	10	
Additional GSA, GSB or GSC	3	
GSD 117, 118, or 119	2	
GSE	4	
Requirements for Major in General Agriculture		44
Chemistry 140B	4	
A minimum of eight hours in each of three departments in the School of Agriculture	24	
Agricultural and Forestry Electives	16	
Electives		28
Total		120

[1]For environmental studies specialization, GSB 220 and GSB/C 221 are required.

Minor

A minor in general agriculture with either an environmental studies or a country living specialization requires 16 hours in the respective area from the courses listed above for the specialization.

Allied Health Careers Specialties (Program, Specialized Major)

Individual courses of study leading to specialties in allied health career fields are offered by the School of Technical Careers through programs which combine clinical experience with appropriate courses from throughout the University, from community colleges, and from other educational institutions.

Each student works with an adviser to design a core curriculum and clinical experience in an appropriate clinical setting. The student may study in such fields as medical laboratory technology, radiologic technology, respiratory therapy.

Because programs are individually designed, prospective students must consult with the faculty about course and program requirements. Persons interested in the allied health careers specialities program should contact the director of the Division of Allied Health and Public Services.

The program is intended to accommodate the non-traditional student. Enrollment is limited by the availability of clinical facilities and supervising faculty; prospective students are urged to begin the admission and advisement process well in advance of the semester in which they wish to begin their studies.

Additional expenses required to cover cost of uniforms, liability insurance, and other items will be $100.00.

This associate degree program can be completed in two academic years at Southern Illinois University at Carbondale or in combination with community college or other acceptable extra-institutional educational experience.

Associate in Applied Science Degree, School of Technical Careers

Requirements for Major in Allied Health Careers Specialties		
GSD 101, 107, and 152	9	
School of Technical Careers 107a, b, 141	7	
GSB 202	3	
Electives/support courses which will change according to areas of concentration	10	
Clinical phases will consist of a minimum of	36	
The clinical phase of the curriculum requires the selection of two allied health careers specialty areas.		
Total		65

Courses

101-1 to 4 Introduction to the Clinical Laboratory Technology. Introduces the student to the field of medical technology and the basic concepts of the clinical laboratory. By utilizing principles from the sciences and applying to a clinical situation, the student will develop skills, safety awareness, and interpersonal relationships. Prerequisite: consent of program adviser.

102-3 Introduction to Radiation Technology. Introduces the student radiographer to the roles and responsibilities of the radiographer, radiology and related service departments, hospital rules and regulations, medical ethics, medical terminology, and the principles of radiation protection. This course is also designed to provide a foundation for more advanced courses and to develop a realization of the importance of future study in the field.

103-1 to 12 Clinical Respiratory Therapy. Introduces the student to basic principles and practice of respiratory therapy. Utilizing guided audio visual instruction, applied structured lab and clinical practice, which includes the following: oxygen and related equipment, oxygen delivery modes, humidifiers and nebulizers, intermittent positive pressure breathing, care of the patient on volume ventilation, understanding psychosocial problems of the chronic respiratory patient. Prerequisite: consent of program adviser.

112-3 Anatomy and Positioning I. This course is designed to provide student radiographers with didactic and laboratory experience which is complementary to the development of elementary clinical competencies and which will serve as a foundation for progression to advanced study.

122-2 Clinic. The information and experience obtained in 122 is designed to acquaint the student radiographer with the operation of the hospital and the radiology department in particular. The time spent in this initial clinical phase of training will allow the student to put to use the knowledge and practices they are concurrently learning in 132 and gain experience in radiographic procedures and film production. The students will also be introduced to film critique.

125-1 to 4 Survey of Allied Health Related Sciences. Emphasizes the concept of health and the basic needs of people, both in a state of health and as altered by illness. This includes the principles of the physical, biological and behavioral sciences and the knowledge basic to the proper understanding of various allied health procedures. Prerequisite: consent of the program adviser.

132-5 Anatomy and Positioning II. This course is an extension of 112 and is designed to provide student radiographers with didactic and laboratory experience which is complementary to the development of clinical competencies.

151-1 to 10 Clinical Laboratory Techniques. Specific tasks in the areas of urinalysis, coagulation, hematology, and serology are taught. Emphasis is on the development of background information, clinical knowledge, and clinical skills. Clinical information obtained through the performance of tasks is evaluated and related to its function in the clinical setting. Methods for data gathering and problem solving are developed. Prerequisite: consent of program adviser.

152-1 to 10 Clinical Radiologic Techniques. Basic radiographic anatomy and positioning of the extremities, chest and abdomen, techniques and practice in specialized radiographic procedures will be taught. Emphasis is placed on patient handling, radiation safety, darkroom procedures, and application of electrical and radiation physics. Clinical skills, clinical knowledge and clinical information obtained through the performance of tasks are validated and related to their function in the clinical setting. Prerequisite: consent of program adviser.

201-1 to 10 Clinical Laboratory Techniques. Specific tasks in the areas of blood banking, clinical bacteriology, and clinical chemistry are taught. Emphasis is on the development of background information, clinical knowledge, and clinical skills. Clinical information obtained through the performance of tasks is evaluated and related to its function in the clinical setting. Methods for data gathering and problem solving are developed. Prerequisite: consent of program adviser.

202-3 Radiographic Physics. This course will concentrate on general theories of physics as they relate to matter, mechanics, and electricity. It also involves a study of the nature and production of radiation and an understanding of the complexity of radiographic equipment and circuitry.

203-1 to 12 Clinical Respiratory Therapy. A continuation of materials covered in 103 with more in depth approach in a variety of clinical situations so that students will be able to develop skills needed in utilizing more complex respiratory therapy equipment and clinical judgments. Care of the patient in acute respiratory failure, cardiopulmonary resuscitation, important procedures in asepsis, airway care and suctioning, medications, basic procedures in pulmonary function testing, and postural drainage. Prerequisite: consent of program adviser.

212-2 Radiation Technology II. This course is designed to provide a qualitative and quantitative study of radiographic film and film processing. Also included in the course is an introduction to the prime factors of x-ray exposure and their effect on radiographic film.

222-2 Clinic II. The experience gained in 222 will be an extension of the knowledge learned in 122. The time spent in this training will allow the students to put to use the knowledge and practices they are concurrently learning in 232 and continue to use the radiation protection techniques and ethical behavior they have already learned from previous courses.
232-4 Advanced Positioning. The material provided in this course will include a study of the less common and more complex procedures that are done on the human skeleton and routine radiography that is done on the digestive system, urinary system, and the female reproductive system. Also covered in this course will be bedside and operating room radiography.
302-6 Clinic III. The experience obtained in 302 is an extension of the knowledge learned in 122 and 222. The time spent in training will allow the students to put to use the practices they have previously learned and continue to use the radiation protection techniques and ethical behavior they have already learned from previous courses.
312-3 Radiographic Pathology. This course provides a study of pathology as it relates to the human body and radiography. Special emphasis will be placed on general disease types and their conditions in relation to radiographic visualization and pathology and its relation to technique.
322-3 Special Procedures. This course is designed to introduce student radiographers to terminology and principles of special radiographic procedures. The student will become familiar with various types of contrast agents and the examinations in which they are used. The student will cover procedures as they apply to all body systems and any other area that is applicable.
332-3 Clinic IV. The experience obtained in 332 is an extension of the knowledge learned in 122, 222, and 302. The students will be expected to put to use the practices they are concurrently learning in 312 and continue to use the radiation protection techniques and ethical behavior they have already learned from previous courses. Specifically, the students will be under limited supervision and will be concentrating on improving techniques and making themselves better radiographers.
342-2 Radiation Biology, Therapy, and Nuclear Medicine. This course is designed to provide the student with a knowledge of the development of radiobiology, the harmful effects of irradiation, radiation syndromes, and radiation oncology as it pertains to pathology and treatment. Also covered will be a survey of contemporary nuclear medicine and radiation therapy practices and application.
352-4 Special Imaging Modalities. This course provides the student with the knowledge and understanding relevant to the function, operation, and application of the various techniques used in image production.
362-3 Clinic V. The experience obtained in 362 is an extension of the knowledge learned in 122, 222, 302, and 332. The students will be under limited supervision and clinical rotations in nuclear medicine, radiation therapy, and ultrasound will be initiated in order to provide the students with an introductory experience in these disciplines.
372-6 Clinical Internship. The experience obtained in 372 is an extension of the knowledge learned in 122, 222, 302, 332, and 362. This time spent in training will give the student a concentrated effort in the overall procedure production of x-rays and during this time final competency evaluations will be made and students will be under close observation to insure overall program success.

Animal Industries (Department, Major, Courses)

Instruction, research, demonstration, and consultation are provided in dairy, horse, livestock and poultry production, meats, pets, and animal hygiene. Courses are offered in all phases of animal production and management.

The student has opportunity to select courses in other areas of agriculture or related fields, such as business, biology, or physical sciences. This selection allows students to include in their studies the agronomic, agricultural economic, and agricultural engineering phases of agriculture or business as related to animal production.

In addition to the production, and the science and pre-veterinary medicine options, the department also offers a two-year and a three-year curriculum in pre-veterinary medicine. These allow qualified students to transfer to accredited colleges of veterinary medicine prior to receiving the Bachelor of Science degree in animal industries.

A major in animal industries may not take a departmental course on an elective Pass/Fail basis if the credits are to be applied toward the required thirty hours in

animal industries courses. Majors may take departmental courses beyond the thirty hour requirement on an elective Pass/Fail basis.

There may be extra expenses for field trips, manuals, or supplies in some courses.

Bachelor of Science Degree, School of Agriculture

ANIMAL INDUSTRIES MAJOR — PRODUCTION OPTION

General Studies and Substitutes	50-51
Substitute Chemistry 140a, b or equivalent for GSA 106	8
Substitute Biology 306, 308, 309, Botany 200 or Zoology 118 for GSA 115	3-4
GSA 208, 209 or substitute	4
GSD 199a, 153 required	4
Requirements for Major in Animal Industries	42
Animal Industries 121, 122, 123, 210 or 311a, 215, 312, 315, 332, 381 plus one course from 420, 430, 465, 480 or 485	21-23
Animal Industries electives including one additional 400-level course	7-9
Agriculture electives excluding Animal Industries courses	8
Microbiology	4
Electives	27-28
Total	120

ANIMAL INDUSTRIES MAJOR — SCIENCE AND PRE-VETERINARY OPTION

General Studies and Substitutes	64
Substitute Chemistry 222a,b or equivalent for GSA 106	8
Substitute Physics 203a, b and 253a, b for GSA 101	8
Substitute Mathematics 110a, b for GSD 107	5
Biology	8
GSA 208, 209, or substitute	4
GSD 199a, 153 required	4
Requirements for Major in Animal Industries	57
Organic Chemistry and Biochemistry	15
Microbiology	4
Animal Industries 121, 122, 123, 210 or 311a, 215, 312, 315, 332, 381 plus one course from 420, 430, 465, 480, or 485	21-23
Animal Industries including one additional 400-level course	7-9
Agriculture electives excluding Animal Industries courses	8
Total	121

Minor

A minor in animal industries is available to those interested in livestock production and care of companion animals. A total of 16 hours within the department is required. Courses may be selected from the areas of nutrition, hygiene, breeding and genetics, reproductive physiology, meats, and livestock production, including horses and pets. An adviser within the department must be consulted before selecting this field as a minor.

Courses

121-3 Science of Animals that Serve Mankind. A general overview of dairy, meat animals (swine, beef, sheep), poultry, and horse industries with emphasis on how meat, milk, and poultry products are produced and distributed. The general application of genetic, physiologic, and nutrition principles for the improvement of animal production to further serve people. Prerequisite: concurrent enrollment in 122.

122-1 Production and Processing Practices of the Animal Industry. Livestock facilities, demonstration of management practices of animals for human use and the processing of animal products. Can be taken without concurrent enrollment in 121. Elective Pass/Fail.
123-1 Practicum in Animal Production. A set of practical experiences at each livestock center and a proficiency examination. Required of all majors in animal industries before graduation.
201-3 Care and Management of Pets. Principles and practices of proper selection, feeding, and care of companion animals. Emphasis is placed on the dog and cat but other species are considered. Nutrition, health care, behavior, training, and reproduction are discussed. Elective Pass/Fail.
210-3 Meat, Poultry and Milk Products as Related to the Consumer. Processing and distribution including inspection, grading, processing methods and merchandising as well as selection and preparation including pricing, storage or preservation, cooking, serving and the contribution to a well-balanced diet of meat, poultry and milk products. Field trip. Elective Pass/Fail.
215-2 Introduction to Animal Nutrition. An up-to-date study of basic principles of animal nutrition including classification of nutrients (physical and chemical properties) and their uses in order to provide the student a working knowledge of livestock nutrition in today's animal environment. Prerequisite: Chemistry 140 or equivalent. Elective Pass/Fail.
220-2 Equitation. Equitation as related to horse training and management. For students who have completed 319, have limited riding experience, and need equitation training to enter 419. Field trip. Enrollment limited. Additional costs $15. Prerequisite: consent of instructor. Mandatory Pass/Fail.
257-1 to 10 Work Experience. Credit given for on-campus work experience related to the student's major area of specialization as developed through the department and the Office of Student Work and Financial Assistance. Only 10 hours of credit may be taken in 257, or in any combination with 258. Prerequisite: consent of chairperson. Mandatory Pass/Fail.
258-1 to 10 Prior Work Experience. Credit given for work experience related to the student's major area of specialization prior to University entrance. Only 10 hours of credit may be taken in 258, or in any combination with 257. No grade for prior work experience. Prerequisite: consent of chairperson.
311-4 (2, 2) Breeds, Classes, Grades, and Selection of Farm Animals and Poultry. **(a)** Discussion of breeds and classes of livestock, dairy and poultry; grading and selection of breeding and market animals and their carcasses of products. **(b)** Competitive judging and selection of livestock, dairy, or poultry. Field trips required. Participation on S.I.U. judging team is not a required part of this course. Must be taken in a,b sequence. Prerequisite: 121 recommended. Elective Pass/Fail.
312-2 Anatomy, Growth, and Development. Anatomy, gross and microscopic, and development processes of bone, muscle and fat tissue of meat animals and the factors which influence their relative rates of formation during the growth process and thus alter body composition and product quality. Prerequisite: Chemistry 140 or equivalent.
315-3 Feeds and Feeding. Principles of applied animal nutrition. Ration formulation to meet specific nutrient needs of all classes of livestock. Feedstuff evaluation, including cost will be discussed. Prerequisite: GSD 107.
319-3 Horses. An introductory course designed for students with interest in horses regardless of their major or background. Lectures, demonstrations, and laboratory work with horses provide basic information and terminology as well as principles and practices of proper selection, use, care, and management of horses. Field trip. Elective Pass/Fail.
331-3 Functions of Animal Systems. A course in the physiology of domestic animals. Various functions of mammalian organisms are discussed using the organ system approach. Human physiology is used as a basis to present the systemic functions of domestic animals. Differences in the functions of monogastric, ruminant, and avian species are presented.
332-3 Animal Breeding and Genetics. The application of basic principles of genetics and breeding systems to the improvement of farm animals and poultry. Prerequisite: 121 or biology. Elective Pass/Fail.
337-3 Animal Hygiene. Principles of prevention and control of infectious, nutritional, and parasitic disease of farm animals. Prerequisite: a course in chemistry. Elective Pass/Fail.
359-2 to 6 (2 to 3, 2 to 3) Intern Program. Work experience program in animal production units and agricultural agencies of the government or agribusiness. Prerequisite: junior standing and consent of chairperson. Mandatory Pass/Fail.
380-1 to 6 Field Studies in Foreign and Domestic Animal Agriculture. A travel course to observe and study the operation and management of farms, ranches, and feedlots as well as agribusiness firms supporting animal production such as food processors, feed manufacturers, and housing or equipment companies in either the United States or foreign countries. A written report is required. The travel fee charged to the student will depend on the nature and the length of the course. Elective Pass/Fail.
381-1 Animal Science Seminar. Discussion of problems and recent development in animal science. Prerequisite: junior-senior standing.

390-1 to 4 Special Studies Animal Industries. Assignments involving research and individual problems. Prerequisite: juniors and seniors only and consent of chairperson. Mandatory Pass/Fail.
410-3 Meat Science. Chemical, physical and nutritional properties of meat and meat products. Topics covered include muscle function, tissue growth and development, aspects of post mortem change including rigor mortis, meat microbiology, methods of analysis and quality control. Prerequisite: 210, Chemistry 140 or equivalent, and a course in physiology.
414-2 Animal Feed Quality Control. Laboratory procedures for nutrient determinations used in animal feed quality control. Prerequisite: Chemistry 140 or equivalent.
415-3 Monogastric Nutrition. Advanced principles and practices involved in meeting nutrient requirements of monogastric animals. Prerequisite: 215 and 315.
416-3 Ruminant Nutrition. Practical knowledge gained of problems associated with digestion, absorption, and metabolism of nutrients as related to domestic ruminants, horses and other pseudoruminants. Prerequisite: 215 and 315.
419-3 Stable Management and Horsemanship. Laboratory experience in routines of horse care, training, and management. Field trips. Additional costs $5. Prerequisite: 319.
420-4 Commercial Poultry Production. Principles and practices of management of broilers, layers, and turkeys as adapted to commercial operations. Field trip. Prerequisite: 315 or consent of instructor.
421-2 International Animal Production. A study of world animal production practices with emphasis on the developing countries. Adaptability of animals to environmental extremes and management practices employed to improve productivity. Prerequisite: junior standing plus 121 or one year of biological science. Elective Pass/Fail.
430-4 Dairy Cattle Management. Application of the principles of breeding, physiology, and economics to management of a profitable dairy herd. Breeds of dairy cattle, housing, milking practices, and quality milk production. Field trip. Students enrolled will incur field trip expenses of approximately $25. Prerequisite: 315, 332.
431-4 Reproductive Physiology of Domestic Animals. Comparative anatomy and physiology of the male and female reproductive system of domestic animals; hormones, reproductive cycles; mating behavior; gestation and parturition; sperm physiology; collection and processing of semen; artificial insemination, pregnancy tests; diseases. Prerequisite: 121 or a course in physiology.
432-2 Quantitative Inheritance of Farm Animals. A review of the genetic principles underlying changes in animal breeding population; interpretations of gene frequency, heritability, and genetic correlations; application of selection and breeding systems in farm animals. Prerequisite: 332. Elective Pass/Fail.
434-2 Physiology of Lactation. Anatomy and physiology of milk secretion; endocrine control; milk precursors and synthesis; milk composition; physiology and mechanics of milking, mastitis. Prerequisite: course in physiology.
455-2 Animal Waste Management. Acquaints the student with the scope and problems involved with animal waste management, current regulations and laws on environmental protection. Principles covering waste management technology and current livestock waste management systems are presented. Field trips will be scheduled. Prerequisite: junior standing.
465-4 Swine Production. Swine production systems and management techniques including breeding and selection, reproduction, nutrition, herd health and disease prevention, housing and waste management, marketing, production costs and enterprise analysis. Field trip. Prerequisite: 315 and 332 or consent of instructor.
480-3 Sheep Production. Breeding, feeding, and management of sheep. Field trip. Prerequisite: 315.
485-4 Beef Production. Beef cattle production systems and management, breeding and selection, reproduction, nutrition, and herd health with emphasis on the most economical and efficient systems. Field trip. Students enrolled will incur field trip expenses of approximately $5. Prerequisite: 315 and 332 or consent of instructor.
500-3 Research Methods in Agricultural Science.
502-2 Surgical Research Techniques in Farm Animals.
506-3 Instrumentation Methods in Agricultural Science.
515-3 Energy and Protein Utilization.
516-3 Minerals and Vitamins in Animal Nutrition.
531-2 Livestock Management for Reproductive Efficiency.
581-1 to 2 (1, 1) Seminar.
588-1 to 8 International Graduate Studies.
590-1 to 3 Readings in Animal Industries.
593-1 to 3 Individual Research.
599-1 to 6 Thesis.
601-1 to 12 per semester Continuing Research.

Anthropology (Department, Major, Courses)

Anthropology is the study of humans and their cultures in terms of universal features, variability, and development through time. The major subdivisions are socio-cultural anthropology, linguistics, archaeology, and physical anthropology. The student is expected to gain a broad background in all subfields, after which the options of further general study or specialization are available. Students are encouraged to supplement their anthropological studies with work in other social sciences, and where appropriate in biology, earth sciences, humanities, mathematics, or other areas.

Most professional anthropologists find employment as teachers and researchers in colleges and universities. However, a major in anthropology provides the students with a unique liberal arts background bridging the humanities, social, earth, and biological sciences, which leads to many other professional opportunities outside of teaching and research.

An anthropology major is required to take Anthropology 300A, B, C, D, and one each of the 410 and 470 course series. No more than six hours of Anthropology 460 and no more than six hours of 200-level course work may be applied toward the major. Those students interested in advanced degrees will be advised to take Anthropology 400A, B, C, D (total 12 hours) with the remainder of the hours as electives. It should be noted that graduate departments often require foreign language and mathematical background beyond that required by the undergraduate program. Those students not interested in advanced study will be advised on an individual basis reflecting their own particular interests and aspirations.

Students with exceptional scholarly promise may be invited into the departmental honors program, which includes an honors seminar and the writing of an honors thesis under the direction of a departmental faculty member.

Bachelor of Arts Degree, College of Liberal Arts

General Studies Requirements	45
Supplementary College Requirements (See page 84)	(4) + 8-14
Requirements for Major in Anthropology	32
Anthropology 300A, 300B, 300C, and 300D required, and an additional nine hours of 400-level course work in anthropology.	
Electives	29-35
Total	120

Minor

A minor in anthropology consists of at least 15 hours including at least two of the four courses: 300A, 300B, 300C, 300D, and a minimum of three of the remaining nine hours at the 400 level.

A minor in anthropology for students interested in museum studies may be earned by taking a designated series of museum-oriented courses offered by the Departments of Anthropology, Geology, History, and the School of Art. Required courses for the minor are drawn from the following: Anthropology 450a,b; Art 207, 447; Geology 445; and History 497, 498.

Courses

221-3 The Anthropology of Sexual Behavior. Introduces the student to general primate ethology where sexual behaviors are seen to be a function of band needs. Patterns of sexuality are then examined on a cross-cultural basis where attitudinal and cultural distinctions between men and women are related to socio-cultural needs and pressures. The course will conclude with an examination of modern western sexism.

225-3 Separate Realities. The focus of this course is on an anthropological approa other realities. The works of Castaneda and Bourguignon, among others, are consid and the functions of these states in societies, including our own, are dealt with.
231-3 Folklore and Modern Life. The folklore of a culture influences both the uncons and conscious actions of people in subtle ways and each study helps to account for bot good and the bad which we see in ourselves and in others. The course introduces th dent to the study of folklore and serves to emphasize the importance of the study o beliefs and their role in understanding our and other contemporary societies.
241-3 Slaves and Slavery in New World Societies. Focuses on slavery and slave sys in New World societies from a comparative historical and social anthropological/sociol perspective.
251-3 Anthropology and Science Fiction. An examination of the basic concepts c thropology viewed through the prism of science fiction literature.
300A-3 Introduction to Physical Anthropology. An introduction to the study of hu evolution. Topics include: evolutionary theory and its history, human genetics, nonhu primates, the human fossil record, and the origins of races. No prerequisites.
300B-3 Introduction to Linguistic Anthropology. Introduces the concept of cultu revealed through human language. Provides both theory and methodology bas linguistics and non-linguistic specialists within anthropology.
300C-3 Introduction to Archaeology. Theory and method of anthropological archae for non-majors and majors.
300D-3 Introduction to Social-Cultural Anthropology. Ways in which humans org themselves for action. Emphasis will be on the social anthropological approaches to lem definition and theory. Comparative and functional analysis of kinship, econ political, religious, and legal systems of non-Western cultures.
303-3 Humans before History: Old World Archaeology. A survey of human socia cultural development from earliest times to the beginnings of civilization. Areas co are Africa, Europe, and Asia, including the Near East.
304-3 Origins of Civilization. A study of complex environmental and cultural factors led to a rise and fall of early high-cultures. The course will concentrate in alternate yea the Old World (Africa and Euro-Asia) and the New World (North, Middle, and S America).
320-3 Human Growth, Development, and Adaptation. The effect of environmenta genetic factors on human development will be examined. Certain classical problems w studied as they relate to human adaptation, e.g. the physiology of high altitude ad tion, and human thermoregulatory adaptations. Prerequisite: 300A or consent of ins tor.
376-2 to 8 Independent Study in Classics Program. (See Classics 496.) Elective Pass
400A-3 Current Problems in Physical Anthropology. Currently controversial issu evolutionary theory and classification will be exemplified by the study of selected as of physical anthropology: genetics, primatology, hominid fossil record, human varia
400B-3 Current Problems in Linguistic Anthropology. Presentation and discussi ongoing developments in theory and methodology in linguistic anthropology. Prerequ 300B for undergraduates or consent of instructor.
400C-3 Current Problems in Archaeology. Detailed consideration of various aspec current directions in archaeological method and theory. Prerequisite: 300C for underg ates or consent of instructor.
400D-3 Current Problems in Social-Cultural Anthropology. A survey of current prob in the description and analysis of non-Western social systems. Prerequisite: 300I undergraduates or consent of instructor.
401-3 Language and Culture. Linguistics and the study of culture in relation to ar communication, language acquisition, linguistic typology and universals, ethnosema and sociolinguistics. Prerequisite: 300B for undergraduate or consent of instructor.
402-3 People and Culture. Offered primarily for non-anthropology majors. Focuses o nature of culture, cultural processes, and culture change with emphasis on social, poli economic, artistic, religious, and linguistic behavior of humans as individuals ar cultural groups.
404-3 Art and Technology in Anthropology. An introduction to the basic ways in w people utilize the natural resources of their habitat to meet various needs, such as shelter, transportation, and artistic expression. The nature of art, its locus in culture its integration into technological society will be considered.
406-3 Conservation Archaeology. The method and theory of archaeology in relation to local, state, and federal laws regarding the protection and excavation of antiquities. phasis is on problem-oriented survey and excavation, as well as the preparation c chaeological contracts and the writing of reports to satisfy statutes involving environ tal concerns. Prerequisite: 300C or 400C or consent of instructor.
409-3 History of Anthropology. The development of anthropological thought from Age of Discovery to the present. The emphasis will be on the intellectual and social m which fostered general and specific conceptual views and methods. Considered are dev

ments in the several major subfields of anthropology including archaeology, anthropological linguistics, human biology, and cultural anthropology. Required for all anthropology graduate students. Prerequisite: None. 300D recommended for undergraduates; 400D or equivalent recommended for graduate students.

410A-3 Applied Anthropology. The practical applications of theoretical social anthropology. Problems of directed culture change are examined from an anthropological perspective as they apply to the work of the educator, social worker, extension agent, administrator and others who are attempting to guide change in the life ways of others in Western culture and the third world. Prerequisite: none. 300D recommended for undergraduates.

410B-3 Educational Anthropology. An examination of the cultural processes of formal and informal education, the use of anthropological premises in educational program design, bicultural-bilingual education programs, comparative American-non-American systems, and the teaching of anthropology. Prerequisite: none. 300D recommended for undergraduates.

410C-3 Economic Anthropology. The study of non-Western economic systems. Prerequisite: none. 300D recommended for undergraduates.

410D-3 Anthropology of Folklore. A comparative study of the role of folklore in various cultures of the world, with emphasis upon nonliterate societies. Analysis of motifs, tale-types, themes and other elements; comparisons between nonliterate and literate groups Prerequisite: none. 300D recommended for undergraduates.

410E-3 Anthropology of Law. Anthropological thought on imperative norms, morality, social control, conflict resolution and justice in the context of particular societies, preliterate and civilized. Law of selected societies is compared to illustrate important varieties. Prerequisite: none. 300D recommended for undergraduate.

410F-3 Anthropology of Religion. A comparative study of (religious) belief systems, with emphasis upon those of non-literate societies. Examination of basic premises and elements of these belief systems, normally excluded from discussions of the "Great Religions". Prerequisite: none. 300D recommended for undergraduates.

410G-3 Psychological Anthropology. Similarities and differences in personality structures cross-culturally including the historical development of this as an anthropological subdiscipline. Prerequisite: none. 300D recommended for undergraduates.

410H-3 Ethnomusicology of Oceania, Asia and Africa. A survey of theory, method, structure, organology, and cultural context of the ethnomusicology of Oceania, Asia and Africa.

410I-3 Ethnomusicology of Middle East, Europe and the New World. A survey of theory, method, structure, organology, and cultural context of the ethnomusicology of Europe and the New World.

410J-3 Kinship and Social Organization. Universal features of non-Western systems of kinship terminology and social organization. Topics include the structure and functioning of kinship systems, lineages, clans, sibs, phratries, moieties, and tribal units. Prerequisite: none. 300D recommended for undergraduates.

420-3 to 9 Advanced Studies in Languages of the World. Attention given to language families, focusing on studies of linguistic history, genetic relationships, and typological classification. Any one semester will concentrate on language of a major geographical area. Prerequisite: 300B or 400B or consent of instructor.

425-3 Cognitive Anthropology. The theory of culture as cognitive organization is explored. Among the topics are: Formal analysis of lexical domains, folk classifications and strategies, the problem of psychological validity, linguistic determinism and relativity, biogenetic and psycholinguistic bases of cognition, and the "new ethnography."

430A-3 Archaeology of North America. Detailed study of the early cultures of North America. Emphasis on the evolutionary cultural development of North America. Prerequisite: 300C or 400C or consent of instructor.

430B-3 Archaeology of Meso-America. Detailed study of the early cultures of Meso-America with emphasis on the evolutionary cultural development of Meso-America. Prerequisite: 300C or 400C or consent of instructor.

430C-3 Archaeology of the Southwest. Detailed study of the early cultures of the Southwest with emphasis on the evolutionary cultural development of the area. Prerequisite: 300C or 400C or consent of instructor.

430D-3 Archaeology of the Old World. Detailed study of the early cultures of the Old World with emphasis on the evolutionary cultural development of the area. Prerequisite: 300C or 400C or consent of instructor.

440A-3 Human Evolution. An advanced consideration of the fossil evidence for human evolution and evaluation of the various theories regarding the course of human evolution. Prerequisite: 300A or consent of instructor.

440B-3 Race and Human Variation. A consideration of the range, meaning and significance of contemporary human biological variation, including evolutionary and adaptive implications and the utility of the race concept. Prerequisite: 300A or consent of instructor.

441-3 Laboratory Analysis in Archaeology. Methods of analysis of archaeological data in a laboratory setting.

444-3 Human Genetics and Demography. A course in human genetics with an emphasis on population genetics and demography of modern and ancient human populations. Prerequisite: 300A, 400A or consent of instructor.
450-6 (3, 3) Museum Studies. A detailed study of museum operation to include **(a)** methodology and display and **(b)** administration, curation, and visits to or field work with area museums. Practical museum work will be stressed in both **(a)** and **(b)** and **(a)** must be taken before **(b)**.
455-3 to 15 (3 per topic) Topics in Physical Anthropology. Intensive study of one of the major subfields within physical anthropology. **(a)** Dental anthropology. **(b)** Laboratory methods. **(c)** Primate behavior and evolution. **(d)** Quantitative methods. **(e)** Epidemiology. Prerequisite: 300a or consent of instructor.
460-1 to 12 Individual Study in Anthropology. Guided research on anthropological problems. The academic work may be done on campus or in conjunction with approved off-campus (normally field research) activities.
470-3 to 24 People and Cultures. A survey of the prehistory, cultural history and contemporary cultures of the area in question. Topical emphasis may vary from course to course and year to year. **(a)** Africa, **(b)** Asia, **(c)** Caribbean, **(d)** Europe, **(e)** Latin America, **(f)** Near East and North Africa, **(g)** North America, **(h)** Oceania. Prerequisite: a basic acquaintance with geography and history of the areas.
480-3 Honors Seminar. Topics to be arranged by agreement of participating faculty and students. Not open to graduate students. Prerequisite: consent of department. Elective Pass/Fail.
495-6 to 8 Summer Ethnographic Field School. An eight-week field research training program in Southern Illinois communities. Students will attend seminars on campus and in the field, but the greater part of the time will be spent engaging in continuous team research under the direction of the faculty members involved in the program. Some form of cooperative living arrangement in the field will be organized. The program is open to advanced undergraduate and graduate students. Prerequisite: consent of instructor.
496-1 to 8 Field School in Archaeology. Apprentice training in the field in archaeological method and theory. Students will be expected to be in full-time residence at the field school headquarters off campus. Prerequisite: consent of instructor.
499-3 Honors Thesis. Directed reading and field or library research. The student will write a thesis paper based on original research. Not open to graduate students. Prerequisite: consent of department. Elective Pass/Fail.
510-2 to 6 (2 to 3 per topic) Seminar in New World Archaeology.
511-2 to 6 (2 to 3 per topic) Seminar in Meso-American Archaeology.
512-2 to 6 (2 to 3 per topic) Seminar in Old World Archaeology.
513-2 to 6 (2 to 3 per topic) Seminar in Archaeology.
515A-3 Seminar in Social-Cultural Anthropology.
515B-3 Seminar in Social-Cultural Anthropology.
520-2 to 6 (2 to 3 per topic) Seminar in New World Ethnology.
521-2 to 6 (2 to 3 per topic) Seminar in Ethnology of Latin America.
522-2 to 6 (2 to 3 per topic) Seminar in the Anthropology of Oceania.
523-2 to 6 (2 to 3 per topic) Seminar in Anthropology of Africa.
530-2 to 6 (2 to 3 per topic) Seminar in Physical Anthropology.
545-2 to 6 (2 to 3 per topic) Seminar in Anthropological Linguistics.
560-2 to 6 (2 to 3 per topic) Seminar in Comparative Social Organization.
562-2 to 6 (2 to 3 per topic) Seminar in the Anthropology of Contemporary Peoples.
565-2 to 6 (2 to 3 per topic) Seminar in Culture Change and Development.
567-2 to 6 (2 to 3 per topic) Seminar in Anthropological Theory and Method.
571-2 to 6 (2 to 3 per topic) Visual Anthropology.
576-2 to 6 (2 to 3 per topic) Seminar in Anthropological Research Design.
581-2 to 6 (2 to 3 per topic) Seminar in Anthropology.
585-1 to 12 (1 to 3 per semester) Readings in Anthropology.
590-1 to 12 Internship in Conservation Archaeology.
595-4 (2, 2) Field Methods in Ethnology.
596-4 (2, 2) Field Methods in Archaeology.
597-1 to 12 Fieldwork in Anthropology.
599-1 to 6 Thesis.
600-1 to 32 (1 to 12 per semester) Dissertation.
601-1 to 12 per semester Continuing Research.

Aquatics (Minor)

(SEE PHYSICAL EDUCATION)

Architectural Technology (Program, Major, Courses)

The continuing growth of the architectural profession requires large numbers of technicians whose training has provided a firm foundation for supporting roles in today's profession and the basis for skill development in emerging activities. The architectural technology program offers this training in a curriculum designed to produce the skills in highest demand in the market for newcomers to the profession. Appropriate general studies and field trips to architects' offices and projects supplement the technical offerings.

Intelligent, motivated students with mathematical, artistic, or manual skills will be most successful in the program. They should be prepared to spend about $200.00 for equipment, supplies, and field trips.

Architects who hold professional degrees and have many years of professional and teaching experience constitute the faculty. The program has the official approval of the American Institute of Architects.

An advisory committee whose members are practicing architects chosen for their understanding of today's needs in the profession and their interest in education assists the faculty in maintaining a current curriculum. Members currently serving on the advisory committee are: Edward F. Bartz, Jr., FAIA, Hellmuth-Obata and Kassabaum, Belleville, William E. Gramley, AIA, Phillips-Swager Associates, Peoria, Frederick W. Salogga, FAIA, Salogga-Bradley-Likins-Dillow, Decatur, and William H. Stein, AIA, Fischer-Stein Associates, Carbondale.

Graduates will have an understanding of the design profession, design and production processes, and other components of the construction industry. Their usual point of entry into the profession is as drafting technicians producing construction drawings. As they gain experience they may develop capabilities to accept more responsibility in such areas as project coordination, specification writing, estimating, various types of engineering, construction inspection, architectural design, and presentation.

There are also nonprofessional opportunities in the construction industry with manufacturers, material suppliers, contractors, and developers.

This associate degree program can be completed in two academic years at Southern Illinois University at Carbondale or in combination with community college or other acceptable extra-institutional educational experience.

Associate in Applied Science Degree, School of Technical Careers

Requirements for Major in Architectural Technology

GSD 101, 153	6
School of Technical Careers 102, 105a,b, 107a,b	10
Architectural Technology 111, 112, 113, 124, 125, 214, 215, 216, 217, 218, 220, 224, 225, 226, 229	60
Total	76

Courses

111-7.5 Architectural Drafting. Use of drafting instruments, lettering and linework; geometric construction, projections, sections and intersections; pictorial drawing, perspective, shades and shadows, and reflections. Lecture three hours. Laboratory nine hours. Prerequisite: major in architectural technology or consent of coordinator of architectural technology.

112-3.5 Architectural Graphics. Freehand drawing; various techniques in black and white media; theory and use of color; delineation techniques in various color media. Lecture one hour. Laboratory five hours. Prerequisite: major in architectural technology or consent of coordinator of architectural technology.

113-2 Architectural History. Study of influences upon, and ensuing development of architecture from the earliest examples to the present; review of the development of architec-

tural practice to its current state. Lecture two hours. Prerequisite: major in architectural technology or consent of coordinator of architectural technology.

124-6 Architectural Drawings I. Introduction to basic materials and components used in contemporary construction. A survey of manufacturing methods, available sizes, performance characteristics, quality, finishes and applications. Usage of vendor's brochures and standard references. Preparation of working drawings in light wood frame construction to practice current procedures, dimensioning, notation, design, correlation, with standard and creative detailing. Lecture three hours. Laboratory six hours. Prerequisite: 111 and major in architectural technology or consent of coordinator of architectural technology.

125-4 Architectural Design I. Problem solving in architectural design with emphasis on design elements and principles, human scale, methods and procedures, composition, and presentation. Architectural projects of relatively small scope and simple nature; and introducing factors of circulation and environmental control. Lecture one hour. Laboratory five hours. Prerequisite: 111, 112, and 113 and major in architectural technology or consent of coordinator of architectural technology.

214-6 Architectural Drawings II. Continuing study of materials and practices in document preparation for non-complex buildings using masonry and reinforced concrete construction. Investigation and use of local, state, and federal codes regulating health and safety. Construction techniques relating to criteria of permanence, low maintenance and budget requirements. Working drawings for single floor, non-residential buildings. Lecture three hours. Laboratory six hours. Prerequisite: 124 and major in architectural technology or consent of coordinator of architectural technology.

215-4 Architectural Design II. Continuing study of architectural design with application of principles and procedures to projects of increased scope and complexity, with attention to research, site planning, and comprehensive feasibility. Presentations in various media. Lecture one hour. Laboratory five hours. Prerequisite: 125 and major in architectural technology or consent of coordinator of architectural technology.

216-4 Architectural Engineering I. Elementary study of forces and force systems using graphical and mathematical solutions. Basic engineering concepts. Reactions, shear and moment diagrams. Axial, bending, and eccentric loading on beams and columns. Application of principles in design with wood, steel, and concrete. Floor and roof support systems using dead and live load calculations. Lecture four hours. Prerequisite: School of Technical Careers 105a,b, 107a,b and major in architectural technology or consent of coordinator of architectural technology.

217-2 Architectural Systems. Basic principles of mechanical and electrical equipment of buildings. Familiarization with water supply and sanitation systems. Fundamentals of properties of heat, sources, transmission, air conditioning, and purification systems. Introduction to vertical and horizontal transportation. Fundamentals of illumination and electrical systems. Fundamentals of acoustics and materials for reflection, attenuation and isolation. Lecture two hours. Prerequisite: School of Technical Careers 105a, b, 107a, b, and major in architectural technology or consent of coordinator of architectural technology.

218-3 Architectural Surveying. Use of surveyor's tape, transit, and level. Fundamentals of topography, area and volume calculations, site planning, and building layout. Lecture one hour. Laboratory three hours. Prerequisite: School of Technical Careers 105a,b; Architectural Technology 111; and major in architectural technology or consent of coordinator of architectural technology.

220-2 Architectural Specifications. Function of specifications as a contract document. The relationship of specifications to architectural drawings. Organization and format. Content of various sections. Lecture two hours. Prerequisite: concurrent with 224 and major in architectural technology or consent of coordinator of architectural technology.

224-6 Architectural Drawings III. Continuing study of materials and practice in document presentation for construction of multi-floor buildings of a more complex nature. Contemporary materials, components and systems. Steel and concrete framing systems using short and longspan steel joists, steel pans, pre- and post-tensioned precast components. Correlation with electrical, mechanical, and structural work. Lecture three hours. Laboratory six hours. Prerequisite: 214, 218, and major in architectural technology or consent of coordinator of architectural technology.

225-4 Architectural Design III. Continuing application of architectural design principles and procedures to projects of higher factor of usage, or greater scope and complexity of function and circulation. Continuing practice in presentation with various media. Lecture one hour. Laboratory five hours. Prerequisite: 215 and major in architectural technology or consent of coordinator of architectural technology.

226-4 Architectural Engineering II. Continuing study of structural framing materials and systems. Design and investigation of framing components of wood, steel, and concrete. Usage of wood, steel, and concrete handbooks. Standard connections and fastening methods. Concrete design, quality control, and field inspection. Beams, columns, lintels, foundations, footings, and retaining walls. Lecture four hours. Prerequisite: 216 and major in architectural technology or consent of coordinator of architectural technology.

229-2 Architectural Estimating. Estimating methods. Material lists and quantities. Material and labor costs. Factors affecting costs. Lecture two hours. Prerequisite: School of Technical Careers 105a,b; Architectural Technology 214 and major in architectural technology or consent of coordinator of architectural technology.

Army Military Science (Department, Courses)

Army military science studies is a voluntary course sequence leading to a commission as an officer in the United States Army (active army, army reserves, or national guard). Students who complete the advanced course of studies six or more months prior to attaining a bachelor's degree, reservists and guardsmen participating in the simultaneous membership program, and students with guaranteed reserve forces duty can be commissioned in the United States Army Reserve or National Guard prior to graduating through the early commission program. Students entering active duty as reserve or regular army officers must have a bachelor's degree. All students must meet University academic requirements and maintain satisfactory academic progress to enter or remain in the army ROTC program. Enrollment in the basic course (freshmen and sophomore years) is unrestricted and carries no military obligation.

Acceptance into the advanced course (junior and senior years, 300-level) is contingent upon meeting academic, basic course, physical, age, test score (ACT/SAT or Cadet Evaluation Battery), and citizenship prerequisites. Students may enter the advanced course any time prerequisites are met regardless of their academic year in school. Students majoring in any field of study at Southern Illinois University at Carbondale are eligible to enter the army military science program. Students on army ROTC scholarships and students in the advanced course do incur a military obligation. The nature of the obligation varies depending on whether the student is on scholarship, is receiving an early commission in the National Guard or reserves, or goes on active duty. All army military science scholarships and advanced course students are paid a monthly tax-free subsistence allowance.

Any student, graduate or undergraduate, with at least two academic years remaining at the University, may participate in the advanced program. Students completing a six-week basic leadership practicum, students completing the basic course, students in the National Guard or United States Army Reserve, and veterans may all enter the advanced course without completing the basic course. Advanced course students attend a six-week advanced camp between their first and second years of the advanced course. This training is conducted at an army post. Students are furnished travel, room and board, and are paid while at camp.

Courses

100-2 (.5 to 1) Basic Leadership Laboratory. Supervised laboratory taken concurrently with 100 and 200 level army military science courses. Course consists of a core of subjects which are designed to introduce the student to basic army military science subjects: role of military, proper wear of uniform, military courtesy, drill and ceremonies. Modules will be taught in land navigation, tactics, rappelling, physical training, and organized athletics. Students will have opportunities to practice skills in a leadership role. This course may be taken for credit up to two semester hours of credit. Freshman and sophomore students enrolled in basic army military science are encouraged to enroll in this course but registration is not required. Mandatory Pass/Fail.

101-1 U.S. Defense Establishment. An examination of the realities of conflict and the U.S. institutional response to conflict. Includes the history, organization, and mission of the U.S. defense establishment and explores the implications of an individual's decision to exercise leadership within the context of the defense establishment.

102-1 or 2 Land Navigation and Traverse. An introduction to land navigation involving the use of the compass, topographic maps, the sun, and prominent stars. Includes terrain traverse techniques such as simple free climbing and rappelling. Competitive compass exercises will also be presented, as well as other outdoor practical exercise.

201-2 Small Group Dynamics and Leadership. Applied leadership in a small group context. Exercises in self confidence, group communications, and leadership evolved from situations where the group is required to function and survive on a self-sufficient basis. Principles of survival and cooperative effort will be explored in depth, with maximum involvement of the student in leadership and problemsolving roles.
202-2 The Military Management System. A study of the military management system including the functional aspect of leadership within the military structure. Includes the presentation of military leadership traits, style, and approaches; managerial techniques, and communications.
258-4 to 6 Basic Leadership Equivalency. Work experience credit for 101, 102, 201, 202. This credit will be evaluated by the head of the Army Military Science unit. Introduces military science in a comprehensive program of classroom and field instruction designed to be taken in lieu of 101, 102, 201, and 202, by students who were unable to complete these courses. The course emphasizes practical field application in a hands-on environment with leadership development. This practicum is conducted over a six-week period during the summer at Fort Knox, Kentucky. Prerequisite: satisfactory completion of the academic phase of the six-week field training program for two-year students.
301-4 A Study of Organizational Leadership. A multi-faceted approach to the study of leadership in both a military and civilian setting. Emphasis is placed upon human behavior, communication, the individual as a leader, group dynamics, and the military's interface with society. An extensive block on the branches of the army is also presented. Includes leadership laboratory. Prerequisite: credit for six hours of 100 and 200 level courses or 258. Non-army ROTC students may elect Pass/Fail.
302-3 Small Unit Tactics. The student is introduced to small unit tactical operations at the platoon and company level. Offensive, defensive, and retrograde operations are covered in detail. Unit organization and patrolling are also stressed. Practical exercises are conducted in the classroom and in field environments. Prerequisite: credit for six hours of 100 and 200 level courses or 258. Non-army ROTC students may elect Pass/Fail.
350-4 Advanced Leadership and Management. An analysis of selected leadership and management problems in the following military subjects: unit administration at company level emphasizing correspondence; fundamental concepts of military justice in the armed forces of the United States, including the procedures by which judicial and nonjudicial disciplinary measures are conducted; U.S. Army readiness program as it deals with unit maintenance; the position of the United States in the contemporary world scene discussed in the light of its impact on leadership and management problems of the military services; and a fundamental knowledge of the logistical support available to the unit. Leadership development is continued by the application of leadership principles, stressing responsibilities of the leader, and increasing experience through practical exercises. Includes leadership laboratory. Non-army ROTC students may elect Pass/Fail.
351-3 Fundamentals and Dynamics of the Military Team. This course is designed to give the students a working knowledge in the theory and dynamics of the military team. Generally this includes a study of combat operations by the various military teams, with emphasis on the planning and coordination necessary between the elements of the team. The subjects to be presented during this three-hour block of instruction include an understanding of command and staff organization at the battalion level, military intelligence methods and procedures used to obtain the intelligence, and an analysis of the principles used in internal defense and development, emphasizing tactical operations which include civil affairs. Since this course is presented just prior to the commissioning of the cadets, several hours of instruction are presented near the end of the school year on the obligations and responsibilities of an army officer. Leadership laboratory one hour per week. Non-army ROTC students may elect Pass/Fail.

Art (School, Major, Courses)

The major objectives of the School of Art at Southern Illinois University at Carbondale are (1) to provide programs of quality and professional education in art; (2) to provide quality education in general studies; and (3) to contribute to the aesthetic, scholarly, and cultural life of the disciplines in the arts and to society in general. Students at all levels of study are expected to strive for the high degree of excellence that is consistent with the ideals and philosophy of the School of Art.

Undergraduate offerings in art provide both introductory and specialized experiences. The course of study offered, leading to the Bachelor of Arts degree with a major in art, offers the student the opportunity to specialize in drawing, painting, printmaking, sculpture, ceramics, metalsmithing, weaving, art educa-

tion, art history, or general studio. The specialization in art education requires 51 hours in art. The specialization in art history requires 64 hours in art. The specialization in general studio requires 52 hours in art, and all other specializations require 72 hours in art.

Bachelor of Arts Degree, College of Communications and Fine Arts

A student majoring in art should select one of the following fields of interest by the end of the sophomore year: drawing, painting, printmaking, sculpture, ceramics, metalsmithing, weaving, art education, art history, or general studio.

ART MAJOR – DRAWING SPECIALIZATION

General Studies Requirements	45
Requirements for Major in Art with Specialization in Drawing	72
Art 100	8
Art 200, 201, 203	6
Art 204, 205, 206 (choice of one)	2
Art 107, 207, electives in art history	12
Art 301	8
Art 300	8
Art 400	12
Art electives	16
Electives	3
Total	120

ART MAJOR – PAINTING SPECIALIZATION

General Studies Requirements	45
Requirements for Major in Art with Specialization in Painting	72
Art 100	8
Art 200, 201, 203	6
Art 204, 205, 206 (choice of one)	2
Art 107, 207, electives in art history	12
Art 300	8
Art 301	8
Art 401	12
Art electives	16
Electives	3
Total	120

ART MAJOR – PRINTMAKING SPECIALIZATION

General Studies Requirements	45
Requirements for Major in Art with Specialization in Printmaking	72
Art 100	8
Art 200, 201, 203	6
Art 204, 205, 206 (choice of one)	2
Art 107, 207, electives in art history	12
Art 300	4
Art 301	4
Art 302	8
Art 402	12
Art electives	16
Electives	3
Total	120

ART MAJOR – SCULPTURE SPECIALIZATION

General Studies Requirements	45
Requirements for Major in Art with Specialization in Sculpture	72

Art 100	8
Art 200, 201, 203, 204, 205	10
Art 107, 207, electives in art history	12
Art 300	4
Art 303	8
Art 403	12
Art electives	18
Electives	3
Total	120

ART MAJOR — CERAMICS, METALSMITHING, OR FIBERS/WEAVING SPECIALIZATION

General Studies Requirements	45
Requirements for Major in Art with Specialization in Ceramics, Metalsmithing, or Fibers/Weaving	72
Art 100	8
Art 200, 201, 203, 204, 205, 206	12
Art 107, 207, electives in art history	12
Art 300	8
Art 303	4
Studio specialization	20
Ceramics: Art 304, 404 Metalsmithing: Art 305, 405 Fibers/Weaving: Art 306, 406	
Art electives	8
Electives	3
Total	120

ART MAJOR — ART HISTORY SPECIALIZATION

General Studies Requirements	49
GSC 207 and 8 hours of foreign language (French or German); 4 hours of the foreign language will not count toward General Studies requirements.	
Requirements for Major in Art with Specialization in Art History	64
Art 107	3
Art 207, 217	5
Art 307, 317, 329, 346, 349	15
Art 419, 439, 447, 449, 467, 477, 487	21
Studio	20
Art 100, 12 hours beyond 100-level	
Electives	7
Total	120

ART MAJOR — GENERAL STUDIO SPECIALIZATION

General Studies Requirements	45
Requirements for Major in Art with Specialization in General Studio	52
Art 100	8
Art 200, 201, 203, 204, 205, 206	12
Art 107, 207, electives in art history	12
Art electives	20
Electives	23
Total	120

Bachelor of Arts Degree, College of Communications and Fine Arts or Bachelor of Science Degree, College of Education

ART MAJOR — ART EDUCATION SPECIALIZATION

General Studies Requirements	45

Requirements for Major in Art with Specialization in Art Education	51
Art 100	8
Art 200, 201, 203, 204, 205, 206	12
Art 107, 207, electives in art history	9
Art 308, 318, 328	9
Art electives	13
Professional Education Requirements	24
See Teacher Education Program, page 77	
Art 318 and 328 substitute for Education 312.	
Total	120

Minor

A total of 16 hours constitutes a minor. A total of 8 hours must be taken in Art 100. The student may elect to take any 200 level courses until the 16-hour requirement is satisfied.

Courses

Art education courses:	308, 318, 328, 338, 348, 408, 418, 428, 508, 518
Art history courses:	107, 207, 217, 307, 317, 329, 346, 349, 419, 439, 447, 449, 467, 477, 487, 507, 517
Studio courses:	100, 200, 201, 203, 204, 205, 206, 300, 301, 302, 303, 304, 305, 306, 319, 400, 401, 402, 403, 404, 405, 406, 414, 500, 501, 502, 503, 504, 505, 506, 514
Independent study courses:	257, 258, 259, 309, 499, 599
Other Courses:	457

100-8 (4, 4) Basic Studio. Introduction to fundamental technical process and conceptual experiences in art. (a) Two-dimensional art, (b) Three-dimensional art. Incidental expenses will be at least $15.00 per semester. Note: 100a or b not sequential.

107-3 Fundamentals of Art. Basic experiences in the vocabulary, language, and theory of art.

200-2 Beginning Drawing. Course work to emphasize experience in materials, techniques, processes, and ideas fundamental to the discipline of drawing. Incidental expenses will be at least $10.00. Prerequisite: 100a, 107.

201-2 Beginning Painting. Course work to emphasize experience in materials, techniques, processes, and ideas fundamental to the discipline of painting. Incidental expenses will be at least $25.00. Prerequisite: 100a, 107.

203-2 Beginning Sculpture. Course work to emphasize experience in materials, techniques, processes, and ideas fundamental to the discipline of sculpture. Incidental expenses will be at least $25.00. Prerequisite: 100b, 107.

204-2 Beginning Ceramics. Course work to emphasize experience in materials, techniques, processes, and ideas fundamental to the discipline of ceramics. Supplies and materials will be $20.00. Additional costs of materials and tools are relevant to individually designed projects. These costs will vary with the individual student. Prerequisite: 100b, 107.

205-2 Beginning Jewelry and Metalsmithing. Course work to emphasize experience in materials, techniques, processes, and ideas fundamental to the discipline of jewelry and metalsmithing. Supplies and materials will be $15.00. Additional costs of materials and tools are relevant to individually designed projects. These costs will vary with the individual student. Prerequisite: 100b, 107.

206-2 Beginning Fibers. A studio course providing experimental form building experiences in basic woven, dyed, printed, stitched, and non-loom fabric structures, emphasizing expressive use of their varied two and three dimensional qualities. The development of skills, feeling for materials, awareness, understanding and appreciation of these arts are emphasized. Supplies and materials will be $15.00. Additional costs of materials and tools are relevant to individually designed projects. These costs will vary with the individual student. Prerequisite: 100b, 107.

207-3 Survey of Art History. A comprehensive survey of painting, sculpture, and architecture from prehistoric to present times.

217-2 Methodology of Art History and Criticism. Lecture, discussion, and presentation of the research tools of art history, art historical logic, and the methods of art criticism. Prerequisite: restricted to students specializing in art history.

257-1 to 30 Work Experience. Credit for concurrent structured or non-structured work performed which is related to the student's educational objective. Credit to be granted by department evaluation. Mandatory Pass/Fail.

258-1 to 30 Work Experience. Credit for past work performed which is related to the student's educational objective. Credit to be granted by departmental evaluation. No grade for past work experience.
259-2 to 16 Transfer Credit. Credit to be given for course work granted by any accredited educational institution, or vocational institution. Prerequisite: any work accepted for transfer credit in art must be granted with the approval of the appropriate faculty.
300-4 to 8 (4, 4) Intermediate Drawing. Use of technique, materials, and processes to develop a visual language in a personal way. Incidental expenses will be at least $15.00 per semester. Prerequisite: 200.
301-4 to 8 (4, 4) Intermediate Painting. Use of technique, materials, and processes to develop a visual language in a personal way. Incidental expenses will be at least $30.00 per semester. Prerequisite: 201.
302-12 (4, 4, 4) Beginning Printmaking. Course work to emphasize experience in materials, techniques, processes, and ideas fundamental to printmaking. **(a)** Etching: metal plate and constructive surface printing. Intaglio, metal, cardboard plate reliefs and collograph. **(b)** Lithography: introduction into plate and stone, including printing in black and white and color. **(c)** Introduction to silkscreen; photo methods, hand cut stencils and direct drawing. May be taken in any sequence. Supplies and materials will be $25.00 per semester per student. Incidental expenses will be at least $15.00 per semester. Prerequisite: 100a and b, 107.
303-8 (4, 4) Intermediate Sculpture. **(a)** Studio-practical and theoretical in figure modeling, mold-making, and reproduction processes. **(b)** Studio-practical and theoretical in metal casting, foundry technology, and metal fabrication. Incidental expenses will be at least $25.00 per semester. Prerequisite: 203.
304-8 (4, 4) Ceramics-Intermediate. **(a)** Techniques: glaze calculation, body formulation, and aesthetic evaluation. **(b)** Use of techniques, materials, and processes to develop a visual language in a personal way. Supplies and materials will be $30.00 per semester. Additional costs of materials and tools are relevant to individually designed projects. These costs will vary with the individual student. Must be taken in a,b sequence. Prerequisite: 204.
305-8 (4, 4) Jewelry-Intermediate. **(a)** Techniques in forming, fabrication, i.e., repousse, chasing, and die forming. **(b)** Use of techniques, materials, and processes to develop a visual language in a personal way. Supplies and materials will be $25.00 per semester. Additional costs of materials and tools are relevant to individually designed projects. These costs will vary with the individual student. Must be taken in a,b sequence. Prerequisite: 205.
306-8 (4, 4) Intermediate Fibers/Weaving. Introduction to the art of weaving using simple as well as floor looms. Spinning and a continuation of work in non-loom fiber and fabric structure is encouraged with emphasis on personal expression and imagery. Supplies and materials will be $30.00. Additional costs of materials and tools are relevant to individually designed projects. These costs will vary with the individual student. Prerequisite: 206.
307-3 Ancient Art. A survey of the arts from the Classical World including the Aegean, Ancient Greeks, and Romans.
308-3 Theories and Philosophies of Art Education. Students are expected to show an understanding of philosophies and theories, general trends in art education programs and teaching methods, perceptual and psychological developments of children, adolescents, and adults, via book and periodical evaluations, preparation of a term paper, lectures, discussions, and a self-instruction center tape-slide series.
309-2 to 12 Independent Study. To be used by majors in the School of Art to pursue independent research activities. Incidental expenses will be dependent upon the nature of the activity. Prerequisite: completion of all 100 and 200 level requirements in major area and consent of instructor.
317-3 Medieval Art. Survey of the arts beginning with the Fall of Rome through the Gothic period.
318-3 Curriculum and Administration in Art Education. Covers curricula, budgets, liaison with administrative, community and professional organization. Also includes the design and development of learning environment. Incidental expenses will be at least $10.00.
319-3 Art Studio for Non-Majors. General studio for the non-art major. Incidental expenses will be at least $10 per semester.
328-3 Art Education Methods of Elementary and Secondary Schools I. Methods in art education as they pertain to the professional art teacher in elementary and secondary schools. Incidental expenses will be at least $20.00.
329-3 19th Century Art. Survey of the arts in Europe from the French Revolution to the end of the century.
338-3 Art Education Methods for Elementary and Secondary Schools II. Methods of basic graphic and commercial art concepts as applied to elementary and secondary schools. Incidental expenses will be at least $20.00.
346-3 Survey of 20th Century Art. A survey of the major artistic developments in paint-

ing, sculpture, architecture, and other selected areas of the visual arts from the beginning of the 20th century until the present.

348-3 Art Education for Teachers. For elementary, special education, early childhood education, child and family, recreation, and other non-art majors. Introduction to uses and applications of art media, approaches to teaching for artistic awareness, concept development, creative expression, appreciation, and knowledge of our art heritage and basic skill building for art judgment. Especially applicable for preschool and K-6 grade levels. Laboratory fee $2.50. Incidental expenses will be $12.00 to $15.00.

349-3 Esthetics. General survey of historical and contemporary philosophies of the beautiful with particular emphasis upon their application to visual works of art.

400-2 to 16 Drawing I. Art studio course directed toward individual research in the student's major field. Emphasis is placed upon the history, materials, processes, and ideas that form the content and experience of the student's major field. Prerequisite: Undergraduates-300-8. Graduates-consent of major adviser in appropriate art discipline.

401-2 to 16 Painting I. Art studio course directed toward individual research in the student's major field. Emphasis is placed upon the history, materials, processes, and ideas that form the content and experience of the student's major field. Prerequisite: Undergraduates-301-8. Graduates-consent of major adviser in appropriate art discipline.

402-2 to 16 Printmaking I. Art studio course directed toward individual research in the student's major field. Emphasis is placed upon the history, materials, processes, and ideas that form the content and experience of the student's major field. Prerequisite: Undergraduates-302-8. Graduates-consent of major adviser in appropriate art discipline.

403-2 to 16 Sculpture I. Art studio course directed toward individual research in the student's major field. Emphasis is placed upon the history, materials, processes, and ideas that form the content and experience of the student's major field. Prerequisite: Undergraduates, 304-8. Graduates, consent of major adviser in appropriate art discipline.

404-2 to 16 Ceramics I. Art studio course directed toward individual research in the student's major field. Emphasis is placed upon the history, materials, processes, and ideas that form the content and experience of the student's major field. Prerequisite: Undergraduates-304-8. Graduates-consent of major adviser in appropriate art discipline.

405-2 to 16 Metalsmithing I. Art studio course directed toward individual research in the student's major field. Emphasis is placed upon the history, materials, processes, and ideas that form the content and experience of the student's major field. Prerequisite: Undergraduates-305-8. Graduates-consent of major adviser in appropriate art discipline.

406-2 to 16 Fibers/Weaving I. Art studio course directed toward helping the student develop a sense of visual organization through individual research in fibers/weaving while gaining skill and facility in the use of these materials and their use in the student's creative expression. Prerequisite: undergraduates, 306-8. Graduates, consent of major adviser in appropriate art discipline.

408-2 to 9 (2 to 3, 2 to 3, 2 to 3) Basic Research in Art Education. Each student demonstrates via class presentation, term papers and answers to exam questions a knowledge of basic research techniques and applications; important literature in the field of art education; broad research meanings; a theory of art education and material on behavioral objectives presented in class and via tape-slide self instruction programs.

414-2 to 16 Glassblowing I. Art studio course directed toward individual research in the student's major field. Emphasis is placed upon the history, materials, processes, and ideas that form the content and experience of the student's major field. Prerequisite: Undergraduates-consent of instructor.

418-2 to 9 (2 to 3, 2 to 3, 2 to 3) Individual Teaching Methods. Each student demonstrates an understanding of individual teacher-directed self-evaluative teaching methods involving studio projects, teacher-student evaluative sessions, individual projects, lecture-discussions and a term paper. Incidental fee $20.00 maximum.

419-3 17th and 18th Century Art. Painting, sculpture, and architecture in Europe from the Baroque period to the French Revolution.

428-3 Individual Problems in Art Education for Elementary Education Majors. Individual concentration on one studio discipline and its application to pre-school, elementary education, early childhood and special education. Incidental expenses will be at least $20.00. Prerequisite: 348a.

439-3 American Art to World War II. Painting, sculpture, and architecture in the United States from the Colonial period to 1945.

447-3 Introduction to Museology. A survey of museum and gallery techniques answering questions concerning contractual agreements, taxes, insurance, packing, shipping, exhibit design and installation, record systems, general handling, public relations, and sale of art works directed toward problems encountered by the artist outside the privacy of his/her own studio. Prerequisite: art major or consent of instructor.

449-3 Renaissance Art. Painting, sculpture, and architecture in Italy and Northern Europe during the Renaissance period and its culmination in 16th Century Mannerist Art.

457-3 Women in the Visual Arts. Consists of lecture, discussion, and research in the following areas: women artists in history and the contemporary art world, the image and crafts, and architecture. Screening fee will be $10.

467-3 Critical Issues in Contemporary Art. An examination of the style and meaning of contemporary art in relation to the current political, social and cultural issues. Will include visual arts, architecture, and communications media.
477-3 Art of the Thirties. A study of American art (painting, sculpture, mural art, crafts, etc.) during the Great Depression. Special emphasis will be placed on the origins of governmental patronage of the arts; its success and failure.
487-3 Special Studies in Italian Renaissance Mural Painting. A study of Italian Renaissance mural painting from Giotto to Michelangelo, 1300 to 1511. Special emphasis will be placed on the production, historical background, iconography, and patronage.
499-2 to 16 Individual Problems. Art studio course directed toward individual research in the student's major field. Emphasis is placed upon the history, materials, processes, and ideas that form the content and experience of the student's major field. Designed to adapt to student's individual needs in problem research. Can be used for interdisciplinary program flexibility. Prerequisite: consent of instructor.
500-2 to 24 Drawing II.
501-2 to 24 Painting II.
502-2 to 24 Printmaking II.
503-2 to 24 Sculpture II.
504-2 to 24 Ceramics II.
505-2 to 24 Metalsmithing II.
506-2 to 24 Fibers/Weaving II.
507-3 to 6 (3, 3) Reading in Art History.
508-2 to 9 (2 to 3, 2 to 3, 2 to 3) Research in Art Education.
514-2 to 24 Glassblowing II.
517-3 to 6 (3, 3) Concepts in Art History.
518-2 to 9 (2 to 3, 2 to 3, 2 to 3) Seminar in Art Education.
599-2 to 6 Thesis.
601-1 to 12 per semester Continuing Research.

Asian Studies (Minor)

The Asian Studies program includes a variety of courses of the languages, civilizations, and contemporary issues of Asia. The program is intended to prepare a student for a number of career options with Asia interests. Through this program, a student may prepare for more advanced work on another campus, may develop a teaching specialty, or may broaden skills and knowledge which would be useful for professional and occupational interests in Asia.

A minor in Asian studies requires a minimum of 20 hours selected from a list of approved courses. Not more than eight hours may be taken in any one department for credit toward the 20 hours.

A student may major in Asian studies by means of the special major program of the University for the Bachelor of Arts degree. The student in this program has to meet University, General Studies, and the College of Liberal Arts requirements. The student's special major would not be approved unless at least 30 hours selected from a list of approved courses with at least three disciplines included are completed. Students interested in this program are encouraged to take at least two years of an Asian language.

Associate Degree Nursing (Program, Major [Nursing], Courses)

The Associate Degree Nursing program, offered through the Southern Illinois Collegiate Common Market, is developed as an open-curriculum model and is designed to provide career mobility for persons who have completed a practical nursing program or its equivalency through formal or informal methods. Students will be given an opportunity to validate past experiences through utilization of a comprehensive testing program.

Facilities limit enrollment to twelve full-time students, but since each student has different proficiencies, there is a possibility of openings during the academic year as students complete requirements. In addition to gaining admission to the

University, the applicant must demonstrate satisfactory levels of previous nursing skills and knowledge by taking the Psychological Corporation Pre-Entrance Examination for Schools of Nursing and Nursing Achievement Examinations prior to being admitted to the program. Requests for information should be directed to Nursing, School of Technical Careers.

After assessment by the nursing faculty, an individualized prescriptive-type educational program will be developed with each student. Didactic instruction will be implemented mainly through a variety of multi-media teaching techniques with individualized assistance from the nursing faculty. Clinical experience will be gained through various cooperating hospital facilities in a designated geographical area of southern Illinois. Since the students will be traveling to several hospitals, it is essential that they have access to transportation. General education courses will be required in the areas of communication and social studies. The nursing courses follow a unique calendar, consequently the student's schedule will extend beyond the normal semester periods.

Additional expenses of approximately $500.00 are required to cover textbooks, the cost of uniforms, the pre-admission examinations, liability insurance, workshops, and other items.

This program is designed to prepare the student for the practice of nursing as defined in the Illinois Nurse Practice Act and meets the requirements for accredited schools in associate degree nursing in Illinois.

Upon satisfactory completion of the program the student will be eligible to write the Illinois State Board Nursing Examination and to become a registered nurse. A registered nurse may be employed in private offices, school systems, hospitals and clinics, nursing homes, industrial health clinics, or other health care facilities.

Associate in Art Degree, School of Technical Careers

Requirement for Major in Nursing

Graduation from an accredited school of practical nursing or equivalent — minimum required transfer of credit	26
General Studies: GSA 106, 209, GSB 202, GSD 101, 153	15
Associate Degree Nursing 201, 202, 203, 204, 206, 208, 209, 210, 211, 212, 213, 214	30
Total	71

Courses

201-3 Introduction to Conceptual Framework. Using the individualized modular approach to education, this course introduces the student to the concepts which are the foundation of the nursing curriculum. Emphasis is placed on the exploration and study of basic human needs and the components of the nursing process. Learning opportunities include both theory content and selected clinical experiences. Prerequisite: acceptance into the associate degree nursing program.

202-2 Maternal-Neonate Nursing Interventions. This course is designed to provide the student with greater depth and broader perspectives of the antepartal, intrapartal, and postpartal neonatal periods. A basic understanding of normal reproductive function and birth process will be necessary in order to study the nursing care of pathophysiological conditions. Emphasis is placed upon the family involvement and cultural needs of the child bearing family. Learning opportunities include both theory and selected clinical experiences.

203-3 Psychiatric Nursing Interventions. This course is designed to provide the student with further exploration and study into the concepts of mental health and mental illness. Emphasis will be placed on developing skills in therapeutic communication techniques, principles of psychiatric nursing, interpersonal relationships, and identifying psychosocial needs of the emotionally ill patient. Learning opportunities include both theory content and selected clinical experiences.

204-2 Neurological-Sensory Nursing Interventions. This course is designed to further the student's knowledge of neurological and sensory function and those associated disorders commonly encountered in nursing practice. Emphasis will be placed on the development of neurological assessment skills and the use of the nursing process for care of patients with major neurological and sensory dysfunction. Learning opportunities include both theory content and selected clinical experiences.

206-3 Orthopedic-Dermatological Nursing Interventions. This course is designed to further the student's knowledge of skeletal, muscular, and skin function and those disorders commonly encountered in nursing practice. Emphasis will be placed on assessing, analyzing, planning, implementing, and evaluating nursing care for those patients experiencing disorders associated with joints, bones, muscles, and skin. Learning opportunities include both theory content and selected clinical experiences.
208-2 Metabolic-Endocrine Nursing Interventions. This course is designed to further the student's knowledge in metabolic-endocrine function and those associated disorders commonly encountered in nursing practice. Emphasis will be placed on application of the nursing process in caring for patients experiencing metabolic-endocrine dysfunction. Learning opportunities include both theory content and selected clinical experiences.
209-2 Community Health Nursing. This course is designed to introduce the student to concepts in community health nursing. The student will learn that the health and well-being of citizens in the community is an integral part of nursing. The problem-solving approach will be applied to identify health problems of clients in a variety of community clinical agencies and settings with special emphasis on community resources for special health problems, communicable diseases, problems accompanying disasters, and special problems of senior citizens.
210-3 Cardiovascular Nursing Interventions. This course is designed to provide the student with further study and depth into cardiovascular function and common pathophysiological processes. Emphasis will be placed on the application of the nursing process, health maintenance, and disease prevention. Learning opportunities include both theory content and selected clinical experiences.
211-2 Respiratory Nursing Interventions. This course is designed to provide the student with further study of pulmonary function and principles of pathophysiology pertaining to common respiratory problems. Emphasis will be placed on the application of the nursing process in caring for patients experiencing respiratory restriction or obstruction. Learning opportunities include both theory content and selected clinical experiences.
212-3 Gastrointestinal/Genital-Urinary Nursing. This course is designed to provide the student with further study and depth into gastrointestinal and genital-urinary function and into their associated pathophysiological processes. Emphasis will be placed on assessing, analyzing, planning, implementing, and evaluating nursing care for patients with common gastrointestinal and genital-urinary disorders. Learning opportunities include both theory content and selected clinical experiences.
213-2 Nursing Today and Tomorrow. Leadership in nursing, transition to the new graduate role, and current issues in nursing are the integral components of the terminal course of this program. Students will be given an opportunity to apply their knowledge and nursing skills in a practical experience.
214-3 Pediatric Nursing Interventions. This course is designed to provide the student with specific aspects of growth and development. The nursing process will be utilized to provide nursing care to meet the physical, intellectual, emotional, and social needs of the pediatric patient. Emphasis will be placed on health promotion, family involvement, and cultural needs of the hospitalized child or adolescent. Learning opportunities include both theory content and selected clinical experiences.

Athletic Training (Minor)

(SEE PHYSICAL EDUCATION)

Automotive Technology (Program, Major, Courses)

The fundamental objective of the automotive technology program at the School of Technical Careers is to provide students with an opportunity to obtain a solid foundation of knowledge, experience, and skills that will assist in job entry and career advancement in automotive service.

The automotive service industry has seen, and will continue to experience, rapid changes in technology. Perhaps the greatest changes will occur within the next decade as more fuel-efficient, less polluting motor vehicles of the future will require highly skilled service technicians who will be skilled in the technologies that have been unknown until just a few years ago. The skills that will be required will be varied and complex and will require service technicians to specialize in certain specific service areas.

This program recognizes the various needs of the industry and the needs of its

future technicians and will offer an opportunity to obtain a solid foundation of knowledge and provide flexibility for a student to develop a specialty of the student's choosing.

During the first year, each student will be required to enroll in a series of core courses which will provide the student with the opportunity to obtain and develop those skills and technical information considered essential to all service technicians.

During the second year, the student may choose any four of eight possible areas. In most cases, these courses will deal with advanced instruction in areas covered in the core courses. In each case, however, the student will select the courses and, after completing this work and the general studies requirements, the student will be eligible for the associate degree.

Instruction in the automotive technology program is geared to a thorough presentation of basic fundamental concepts and reinforced with practical applications of those concepts with structured laboratory activities and service and diagnosis of live automobiles. In a vast majority of the courses all units studied will be working or operational units and dynamic testing of the units is an integral part of the course.

Additional expertise is provided to the program through an advisory committee composed of persons chosen for their knowledge of the field and their interest in education. Current members are: Mr. Al Bradshaw, supervisor of service training, Chrysler Motors Corporation; Mr. James F. Lane, zone service manager, Oldsmobile Division, General Motors Corp., Mr. James Racz, DuPage County Highway Department, Mr. Donald Vogler, Vogler Ford, Carbondale, Mr. Harry Wiggs, Carbondale Auto Supply, Mr. C. T. Warren, Ford Motors Co., St. Louis, Mo. and Mr. David Elder, service manager, Jim Pearl, Inc., Carbondale.

The student should expect to spend about $300 for a basic tool kit consisting of both domestic and metric tools and supplies.

The associate degree can be completed in two academic years at Southern Illinois University at Carbondale or in combination with community college or other acceptable extra-instructional educational experience.

Associate in Applied Science Degree, School of Technical Careers

Requirements for Major in Automotive Technology

GSD 101 and 153	6
School of Technical Careers 102, 105a, 107a, b, 108	10
Automotive Technology 101, 103, 105, 107, 115, 121, 123, 125, 127	32
Thirty hours of selected 200-level Automotive Technology courses	30
Total	78

Courses

101-4.5 Automotive Engines and Fuel Systems Laboratory. Enables the student to learn the fundamental service techniques and procedures required to service current automotive engines through meaningful hands-on experience on live engines. The student will disassemble laboratory engines, inspect for wear and damage, and reassemble the engine to operating condition according to manufacturer's specifications. The student will also be given specific instruction regarding the adjustment, repair, and diagnosis of carburetors. Laboratory will be fourteen clock hours per week for eight weeks. Prerequisite: concurrent enrollment in 121.

103-4.5 Brakes and Chassis Laboratory. Designed to provide the student with work experience performing various chassis, suspension, and brake services on live vehicles. Complete brake overhaul, front end rebuilding, wheel alignment, and wheel balancing are some of the tasks performed. Laboratory will be fourteen clock hours per week for eight weeks. Prerequisite: concurrent enrollment in 123.

105-4.5 Engine Electrical Laboratory. Allows the student to apply the fundamental theories of electricity to the actual diagnosis and testing of the battery, charging, starting, and ignition systems. Hands-on experience on live and laboratory units is the basic part of this course. Laboratory will be fourteen clock hours per week for eight weeks. Prerequisite: concurrent enrollment in 125.

107-4.5 Drive Trains Laboratory. Provides the student with hands-on experience in diagnosis and repair of the modern vehicle drive line. Service activities such as overhaul procedures for 3, 4, and 5-speed manual transmissions, clutch service, universal joint repair, drive line angle measurement, and complete differential repair will be included. Laboratory will be fourteen clock hours per week for eight weeks. Prerequisite: concurrent enrollment in 127.

115-2 Related Shop Laboratory. Provides the student with an opportunity to learn and perform routine service operations and small repairs that are required of all automotive service personnel. Such topics as thread repairs, fasteners, drill sharpening, broken stud removal, copper and brass fitting identification and fabrication, and basic acetylene welding and brazing are examples of some of the course content. Theory-laboratory will be four clock-hours per week for eight weeks.

121-3 Basic Automotive Engines and Fuel Systems Theory. Explanation of the theory of operation and design characteristics of the four-stroke cycle gasoline engine as well as the basic automotive fuel system and carburetor. The different engine designs, basic carburetion and ignition, horsepower and torque computation, and related systems of engine operation are examples of some of the topics to be covered. Theory will be six clock hours per week for eight weeks. Prerequisite: concurrent enrollment in 101.

123-3 Brakes and Chassis Theory. Provides instruction in the physical laws of hydraulics and pneumatics and their application to the modern brake and steering systems. Included is the study of steering geometry and suspension service procedures. Also covered is brake diagnosis and repair, brake machining, and power brakes. Theory will be six clock hours per week for eight weeks. Prerequisite: concurrent enrollment in 103.

125-3 Engine Electrical Theory. Provides the student with an opportunity to learn the fundamental theories of electricity and to apply these fundamentals in the operation of batteries, cranking motors, solenoids, relays, alternators, generators, regulators, and ignition systems. Special emphasis is placed on meter use and sound diagnostic procedures. Theory will be six clock hours per week for eight weeks. Prerequisite: concurrent enrollment in 105.

127-3 Drive Trains Theory. Deals specifically with the units needed to transmit the power of the automobile from the engine to the rear wheels. Presents to the student such things as clutches, standard transmissions 3, 4 and 5-speed, propellor shafts and differentials, their principles of operation, theory involved, and repair procedures. Included in this course is also basic study of planetary gears and fluid couplings. Theory will be six clock hours per week for eight weeks. Prerequisite: concurrent enrollment in 107.

201-4.5 Automatic Transmission Laboratory. Permits the student to acquire practical experience in the service procedures required on automatic transmissions. Proper disassembly, inspection, measurement, and reassembly will be stressed along with dynamic testing on a dynamometer of the transmissions being serviced. Outside vehicles will be repaired with emphasis on proper diagnosis before repairs are performed. Laboratory will be fourteen clock hours per week for eight weeks. Prerequisite: 101, 121, 107, 127, and concurrent enrollment in 221.

203-4.5 Automotive Power Accessories Laboratory. Assists the student in developing a comprehensive understanding of the diagnostic and repair procedures required of the various comfort options and accessories commonly found on current production automobiles. Diagnosis and repair of automotive lighting systems and dash instrumentation will also be included. Laboratory will be fourteen clock hours per week for eight weeks. Prerequisite: 105, 125 and concurrent enrollment in 223.

204-4.5 Automotive Air Conditioning Laboratory. Provides the student with an opportunity to obtain practical experience in the actual service and diagnostic procedures required of all current air conditioning systems. Service activities presented will consist of all operations required of the refrigeration system including compressor rebuilding and the diagnosis and repair of factory-equipped systems. Laboratory will be 14 clock hours per week for eight weeks. Prerequisite: 105, 125, and concurrent enrollment in 224.

205-4.5 Advanced Fuel and Emission Systems Laboratory. Students will diagnose, overhaul, and adjust the current domestic types of carburetors. Heavy emphasis will be on engine performance testing and diagnosis of engine malfunctions through the use of test equipment such as oscilloscopes and infra-red testers. Laboratory will be fourteen clock hours per week for eight weeks. Prerequisite: 101, 121, 105, 125, and concurrent enrollment in 225.

207-4.5 Advanced Brakes and Chassis Laboratory. Provides the student with the opportunity to acquire practical experience in the actual service of such things as power steering, steering columns, anti-skid brakes, load leveling devices, and total vehicle alignment. Laboratory will be fourteen clock hours per week for eight weeks. Prerequisite: 103, 123, and concurrent enrollment in 227.

208-4.5 Advanced Engine Laboratory. Allows the student the opportunity to develop those skills and service techniques that are considered essential to perform quality engine rebuilding. Service operations such as valve refacing, cylinder head, engine block, crankshaft, rod, and piston reconditioning are examples of activities that will be performed

on live vehicles scheduled for this purpose. Diagnosis of engine mechanical failures and noises will also be emphasized. Laboratory will be fourteen clock hours per week for eight weeks. Prerequisite: 101, 121, 105, 125, and concurrent enrollment in 228.

209-4.5 Advanced Electrical Systems Laboratory. Designed to provide detailed instruction on the approved service procedures for diagnosis and repair of current ignition, charging, and starting systems. These activities will be performed on live vehicles and laboratory units. Laboratory will be fourteen clock hours per week for eight weeks. Prerequisite: 101, 121, 105, 125, and concurrent enrollment in 229.

210-4.5 Fuel Injection Systems Laboratory. Laboratory enables the student to learn the fundamental service techniques and procedures required to service current diesel and gasoline injection systems. The student will disassemble diesel and gasoline injection components, inspect for wear or damage and reassemble to operating condition. The student will also be involved in tune-ups of diesel engines used on American automotive products. Prerequisite: 101, 121, 105, 125 and concurrent enrollment in 230.

221-3 Automatic Transmission Theory. An in-depth study of the current automatic transmissions offered by the major manufacturers. This course deals with the torque converter, planetary gear systems, methods of clutching, and hydraulic controls. Special emphasis will be placed on methods of diagnosis and repair of problems. Oil circuitry will be presented in detail. Theory will be six clock hours per week for eight weeks. Prerequisite: 101, 121, 107, 127 and concurrent enrollment in 201.

223-3 Automotive Power Accessories Theory. Allows the student to obtain a sound understanding of the theory of operation of the various electrical accessories and popular comfort options. Examples of units studied are: power windows, power seats, windshield wiper motors, dash instruments, heated rear windows, body lighting and warning buzzer systems. Assisting the student to interpret electrical wiring diagrams will be emphasized. Theory will be six clock hours per week for eight weeks. Prerequisite: 105, 125 and concurrent enrollment in 203.

224-3 Automotive Air Conditioning Theory. Allows the student to obtain in-depth instruction in the fundamental principles of refrigeration systems which are applicable to all current systems, plus the theory of operation of the various controls used on factory installed units. Such topics as the refrigeration cycle, temperature regulation, anti-frost controls, and air conditioning systems testing are examples of the material studied. Theory will be six clock hours per week for eight weeks. Prerequisite: 105, 125 and concurrent enrollment in 204.

225-3 Advanced Fuel and Emission Systems Theory. Deals specifically with the theory of operation of most types of carburetors used on domestic automobiles. The emission control systems and laws concerning automotive emission standards will also be a major topic of the course. Proper tune-up procedures to meet emission standards will be studied in detail. Theory will be six clock hours per week for eight weeks. Prerequisite: 101, 121, 105, 125, and concurrent enrollments in 205.

227-3 Advanced Brake and Chassis Theory. An in-depth study of brakes and suspension systems to include such topics as power steering, columns, anti-skid brakes, load leveling devices, and total vehicle alignment. Theory will be six clock hours per week for eight weeks. Prerequisite: 103, 123, and concurrent enrollment in 207.

228-3 Advanced Engine Theory. Major emphasis will be on piston, rod, crankshaft, cylinder head, and combustion chamber designs of the modern automotive engine. The student will have the opportunity to apply the principles that are directly related to service operations, diagnosis, and repair of mechanical malfunctions of the engine. Theory will be six clock hours per week for eight weeks. Prerequisite: 101, 121, 105, 125 and concurrent enrollment in 208.

229-3 Advanced Electrical Systems Theory. Emphasis will be on operation, diagnosis, and repair of under-the-hood electrical systems. Electronic ignition and charging systems will be studied in detail. Also in-depth instruction will be provided in the operation, diagnosis and repair of starter motors and starter control circuits. Theory will be six clock hours per week for eight weeks. Prerequisite: 101, 121, 105, 125, and concurrent enrollment in 209.

230-3 Fuel Injection Systems Theory. Provides the student with an opportunity to learn the fundamentals of fuel injection systems used on diesel and gasoline engines. This course will include theory of operation, design characteristics, service, diagnosis and diesel tune-up. Theory will be six hours per week for eight weeks. Prerequisite: 101, 121, 105, 125 and concurrent enrollment in 210.

Aviation Technology (Program, Major, Courses)

Skilled technicians are in demand in the aviation industry, both in airlines and general aviation. The industry demands people who possess a wide range of

knowledge and ability provided by general education as well as special technical training.

The student learns reciprocating and jet powerplants, cabin environment and jet transport systems, hydraulics, fuel systems, ignition-starting systems, carburetion and lubricating systems, instruments, and powerplant testing in coordinated classroom and laboratory work. The program is fully accredited by the Federal Aviation Administration. Students who wish to qualify for the FAA airframe and powerplant license are required to take a two-course post-associate specialization.

Instruction is conducted at the Southern Illinois Airport between Carbondale and Murphysboro in a combination laboratory-classroom-hangar facility.

The student should expect to spend about $250 for a tool kit and special study materials.

Executives in the aviation industry constitute an advisory committee which serves the program. Current members are: Robert R. Bethel, senior engineer, avionics department, McDonnell-Douglas Corp., St. Louis, Mo.; Raoul Castro, manager, aviation department, Marcor, flight operations, Chicago; R. Craig Christie, vice president, marketing, King Radio Corp., Olathe, Kansas; John P. Davis, assistant vice president, maintenance, Delta Air Lines, Inc., Atlanta, Ga.; Roy S. Davis, director, technical services, TWA, O'Hare International Airport, Chicago; Jack Tuitt, captain and flight manager, midwest region, United Air Lines, O'Hare International Airport, Chicago; H.E. Chandler, supervisor, training center, Bell Helicopter Co., Fort Worth, Texas; Joseph Goetz, senior captain, pilot, TWA, Kennedy Airport, New York; Howard D. Gould, management consultant, Personnel and Industrial Race Relations Associates, Chicago; Robert J. Graham, supervisor, production control, American Air Lines, O'Hare International Airport, Chicago; Alfred E. Jordan, vice president, technical affairs, TWA, New York; A. Edward Langhorst, manager, aircraft engine group, Evendale Technical Training School, General Electric Co., Cincinnati, Ohio; C. Steven Nicely, manager, training division, product support, Douglas Aircraft Co., Long Beach, Calif.; William Norwood, captain, United Air Lines, Elk Grove Village; John J. Pitrus, manager, commercial marketing, Pratt and Whitney Aircraft, East Hartford, Conn.; John S. Winter, president, Systron Donner Corporation, Berkeley, Calif.; Frank H. Wood, supervisor, ramp operations department, United Air Lines, O'Hare International Airport, Chicago; and Phillip S. Woodruff, president, Woodruff Aviation.

Associate in Applied Science Degree, School of Technical Careers

Requirements for Major in Aviation Technology

GSD 101, 118, 153	8
School of Technical Careers 105a	2
Aviation Technology 110, 111, 112, 113, 203, 204, 205, 210, 211, 212, 214, 215, 216	66
Elective (in social science)	5
Total	81

Courses

110-4 Aircraft Structure-Fabrication and Repair. Students will be able to identify and select materials employed in aircraft construction. Using appropriate FAR's, they will demonstrate competence in repair of honeycomb, fiberglass, welded, wood, or fabric aircraft members. The student will inspect aircraft members for defects and, if necessary, inspect completed repairs for airworthy condition.

111-7 Materials and Metal Processing. Students will be able to identify, select, and inspect aircraft hardware and materials. They will be able to select and apply appropriate cleaning materials and to implement corrosion controls. They will become proficient in the use of precision measurement equipment and related inspection tools. They will be able to make appropriate sheet metal repairs using correct repair procedures, tools, and materials. They will

be required to demonstrate correct use and interpretaton of structural repair diagrams and correct interpretation of charts and tables from AC 43.13-1 pertaining to materials and methods.
112-4 Aircraft Electricity. Students will have basic knowledge of electricity generation, AC and DC circuitries, and controls. They will be able to solve problems associated with electrical measurement (AC and DC), circuit interpretations and inspection, aircraft electrical load analysis, circuit malfunctions, and circuit or component servicing. They will have as an introduction, a basic knowledge of aircraft electronics.
113-5 Aircraft Instruments and FAR. Students will have a knowledge of operation, installation, marking, and interpretation of synchro and servo systems, aircraft and power-plant instruments. They will be able to install, adjust, and calibrate these instruments in accordance with FAA and manufacturers' recommendations. They will be able to select and use FAA technical and legal publications in order to perform the duties of an aircraft technician. Lecture, 3 hours. Laboratory, 2 hours.
203-5 Aerodynamics and Weight and Balance. Students will have a knowledge of flight theory and factors affecting aircraft in flight. They will explain and compare aircraft design features in subsonic, transonic, and supersonic aircraft. They will be able to assemble and rig various aircraft control systems, analyzing and correcting faulty flight characteristics. Students will fully understand and solve problems of aircraft weight and balance. They will be able to perform weighing, computation of G.G., and establishing of equipment list.
204-4 Hydraulics (Aircraft). Students will have a knowledge of fluid theory and applied physics which relates to aircraft hydraulics. They will know the theory of operation, maintenance requirements, and adjustments of various hydraulic components and systems. They will be able to test, inspect, troubleshoot, and service hydraulic systems and overhaul malfunctioning components in accordance with FAA and manufacturers specifications.
205-5 Cabin Environment and Jet Transport Systems. Students will understand the atmospheric variables at different altitudes and the basic equipment required to cope with malfunction in the cabin pressurization and air-conditioning systems. Using the available information, jet transport aircraft and simulated training panels, they will understand the operation of and be able to identify the components of flight control systems, landing gear, fuel, anti-icing, and fire detection systems. They will be able to compare and analyze aircraft systems of current jet transport aircraft and to diagnose and resolve malfunction problems. They will have knowledge of procedures for aircraft and to diagnose and resolve malfunction problems. They will have knowledge of procedures for aircraft ground handling, APU operation, and system servicing.
210-7 (2, 5) Aircraft Electrical and Ignition Systems. **(a)** The successful student should have a knowledge of the operation, repair, inspection, and service of small and large aircraft electrical systems, using schematic diagrams and training panels; **(b)** The successful student should have a knowledge of the operation, repair, inspection, and service of reciprocation and jet powerplant ignition systems and reciprocating starting system. They will be able to time, overhaul, and troubleshoot the various components of each system. Lecture four hours. Laboratory six hours.
211-5 Reciprocating Powerplant. Students will have a knowledge of construction, operation, and timing mechanisms associated with aircraft reciprocating powerplants. They will be able to disassemble, clean, measure, inspect, and reassemble a powerplant to airworthy condition in accordance with appropriate FAA and manufacturers' regulations and practices.
212-5 Carburetion, Lubrication, and Fuel. Students will be able to demonstrate their competence in identifying fuel and oil system components and carburetors, understanding the operating principles of each. They will be able to inspect, adjust, troubleshoot, and overhaul these components according to manufacturers and federal regulations. They will be able to identify the grades of aviation fuels and lubricants and understand the characteristics and uses of each.
214-4 Propellers. Students will have a knowledge of the physical laws and design characteristics governing propeller operation. They will be able to identify components, troubleshoot, and adjust fixed and variable pitch propellers. They will maintain fixed pitch propellers, and the governor system for variable pitch propellors in accordance with FAA and manufacturers' standards.
215-5 Powerplant Testing. Students will have an understanding of the correct procedures and precautions to be observed during engine installation, ground operation, and fuel and oil servicing. They will be required to inspect and troubleshoot reciprocating and jet engines for airworthy condition and interpret engine instrument readings to diagnose engine malfunctions.
216-6 Jet Propulsion Powerplant. Students will be able to apply and understand physics laws related to jet powerplants. They will be able to identify and understand the operation of jet engines and their components. They will be able to perform inspection, maintenance repair, troubleshooting, and adjustments of jet powerplants and accessories. They will be able to analyze engine performance and to interpret operational charts, graphs, and tables.
225-6 Aircraft Inspection. Students will be able to perform a 100-hour and an annual in-

spection of an aircraft. They will demonstrate knowledge of FAR's by checking appropriate AD's, classifying repairs, and pinpointing specific service problems. They will also complete the required maintenance forms, records, and inspection reports required by federal regulations. They will understand and be able to perform inspection under computerized aircraft maintenance programs.

230-6 Powerplant Inspection. Students will be able to perform periodic inspection of powerplants. They will demonstrate their knowledge of FAR and application of FAA ADs', Service Bulletins, and proper use of inspection equipment. They will use knowledge learned in the powerplant curriculum to perform malfunction analysis of powerplant and related systems. Live equipment is used on a return-to-service basis.

301-6 Helicopter Theory and General Maintenance Practices. The student will have in-depth knowledge of rotary wing aerodynamics, main and tail rotor systems, rotor blades, primary and secondary controls, and general maintenance practices to include inspection and nondestructive testing. Prerequisite: Federal Aviation Administration Airframe and Powerplant Technician licenses.

302-10 Helicopter General Maintenance Laboratory. The student will perform general maintenance on rotary wing main rotor systems, tail rotor systems, rotor blades, flight and powerplant controls to include malfunction analysis, tracking, static balancing, rigging, and repair. The student will perform general helicopter inspections and nondestructive testing including magnetic testing, dye penetrant testing, and boroscope inspection. Prerequisite: concurrent enrollment in 301.

304-6 Helicopter Power Train and Inspection. The student will have an in-depth knowledge of the operation, function and inspection of all rotational components of a rotary wing aircraft to include transmission, gear boxes, drive trains, and drive shafts. Prerequisite: 301 and 302.

306-10 Helicopter Power Train Lab. The student will perform all functions of overhaul concerned with rotary wing transmissions, gear boxes, and drive trains. The student will demonstrate skills in disassembly, inspection, reassembly, discrepancy analyzation, vibration analysis, and dynamic balancing. Prerequisite: concurrent enrollment in 304.

Avionics Technology (Program, Major, Courses)

Avionics, or aircraft electronics, is a rapidly growing field requiring highly skilled technicians for work in the development, installation, and maintenance of the sophisticated avionics systems required for effective utilization of modern day aircraft by the aviation industry.

The avionics technician finds opportunities for employment with the airline industry, general aviation, and in aircraft manufacturing, where employees will install, maintain, test and repair airborne communications and navigation systems, airborne radar systems, and related equipment.

The avionics technology program combines resources of either aviation technology and avionics technology or electronics technology and avionics technology. The student has the option of enrolling in the airframe program of aviation technology or the first year of electronics technology at Southern Illinois University at Carbondale or a community college with a program in aviation technology. The second year avionics will be completed at the facilities of the Aviation Technologies Division at the Southern Illinois Airport.

All instruction is programmed in a balanced combination of classroom lecture and actual "hands on" laboratory experience under the supervision of instructors who have extensive experience and expertise in their respective fields.

The student will have courses in basic direct current, alternating current, electrical power systems, airborne, auxiliary power systems, electrical generation and distribution, load transfer, solid state devices, aircraft communications and navigation systems, aircraft radar systems, aircraft flight control and instrumentation systems, aircraft integrated flight systems, UHF transmitters, receivers, and transceiver (including single sideband principles), pulse and microwave systems, antenna types, wave propagation and transmission lines, and Federal Aviation Administration and Federal Communication Commission regulations.

Enrollment in the program is limited, so the prospective student should plan to make application well in advance of the session in which the studies begin.

In addition to regular University tuition and fees, the student is required to purchase basic tool kits and study material at an approximate cost of $100.

Executives in the aviation industry constitute an advisory committee which services the program. The current members are listed under aviation technology and they serve both programs.

This associate degree program can be completed in two academic years at Southern Illinois University at Carbondale or in combination with community colleges or other acceptable extra-institutional educational experience.

Associate in Applied Science Degree, School of Technical Careers

*Requirements for Major in Avionics Technology**

AVIONICS TECHNOLOGY MAJOR – AIRFRAME OPTION*

GSD, 101, 118, 153	8
GSB Elective	3
School of Technical Careers 105	2
Aviation Technology 111, 112, 113, 203, 204, 205, 210A	32
Avionics Technology 232	10
Avionics Technology 233, 234, 235, 236, 237, 238	32
Total	87

AVIONICS TECHNOLOGY MAJOR – ELECTRONICS AND AVIONICS OPTION*

GSD 101, 118, 153	8
GSB Elective	3
School of Technical Careers 105	2
Electronics Technology 101, 102, 111, 112, 121,122	28
Aviation Technology 113	5
Avionics Technology 233, 234, 235, 236, 237, 238	32
School of Technical Careers 118	2
Total	80

*To meet Federal and industry requirements, the student should plan to take additional 300-level courses offered as a post-associate specialty.

Courses

101-3 Aircraft Systems. An introductory course in aviation primarily designed for the student who has little or no background in aviation, but desires to learn about the aircraft and its systems in use today. The course will cover light, heavy, and rotary wing aircraft found in today's civil fleet.

232-10 Avionics-Electronic Circuits. Designed especially for students who have completed the Aviation Technology Program and wish to enter the Avionics Technology Program for a second major. Theory of operation of diode, practical rectifiers, DC to DC converter and airborne audio amplifier system both tube and transistor. Construction of basic avionic circuits and isolation of malfunctioning components. Perform repairs and testing of transistors and tube and tube type of avionic circuitries. Lecture eight hours, laboratory four hours. Prerequisite: Aviation Technology 210, Electronics Technology 102 and concurrent enrollment in Avionics Technoloy 233.

233-5 Aircraft Communication and Navigation Systems Theory. Student will have knowledge of the theory of operation, calibration, and frequency selection of NAY-COM equipment. They will understand transceiver circuitries, closed frequency loop SCR circuits, audio amplifiers, inter-com systems, VOR navigation receivers, VOR converter, glide slope receivers, ADF receivers, and marker beacon receivers. They will be able to use avionics manufacturers maintenance and overhaul manuals and FAA regulations. Lecture five hours.

234-6 Avionics Laboratory II. Students will be able to identify systems components. They will be able to operate and calibrate test equipment. They will be able to troubleshoot and repair communication and navigation equipment, and to perform alignment of transceivers, navigation receivers, VOR converter, ADF receivers and marker beacon receivers. They will effectively perform modification and compliance of Service Bulletins and FAA Directives. Laboratory twelve hours.

235-6 Flight System Theory. Students will have knowledge of operation and installation of aircraft control, navigation, communication, syncro and servo systems. They will be able to determine if a system meets factory and FAA specifications. They will learn to use technical publications. Lecture six hours.

236-5 Avionics Laboratory III. Students will be able to operate, install, adjust, troubleshoot, and repair automatic pilot, automatic stabilization systems, and integrated flight systems. They will be able to install, adjust, and troubleshoot flux gage compass, gyrosyn directional indicator, rate gyros, RMI repeater and attitude gyros. They will be able to use technical publications. Laboratory ten hours.
237-5 Avionics Logic Circuits and Pulse Systems Theory. Students will be able to analyze the use and operation of logic gates, gate expanders, invertors, flip-flops, shift regestors, decade chounters and operational amplifiers as used in avionics circuits. They will have knowledge of pulse circuits used in distance measuring equipment and ATC transponders. Lecture, five hours.
238-5 Avionics Laboratory IV. Students will be able to locate, identify, troubleshoot, and repair logic circuits used in avionics equipment. They will be able to test, calibrate, troubleshoot, and repair distance measuring equipment and ATC transponders in accordance with manufacturer and FAA Repair Station Guidelines. Laboratory, ten hours.
302-3 Avionics Laboratory V. Students will be able to conduct avionics loan analysis and perform weight and balance problems. Given a malfunction in an avionic system on the aircraft, they will be able to locate the faulty component, and to perform necessary repairs and to return equipment to airworthy status. Laboratory 12 hours.
303-2 FCC Regulations. The student will have knowledge of FCC requirements for aircraft station licenses, aeronautical ground station and operator's licenses. Lecture 4 hours.
304-4 Avionics Radar System Theory. The student will have knowledge of airborne radar system circuits, and understand the theory of operations of radar antenna system. The student will be able to perform installation, system performance check out, circuit adjustment, trouble shooting, and general repair of the airborne radar system.

Basic Skills (Center, Courses)

Not more than four hours of credit for Center for Basic Skills courses may be counted toward fulfillment of graduation requirements for either the baccalaureate or associate degree.

Courses

110-2 Developmental Basic Skills, Unit One. A one-semester course designed to improve the students' reading skills with special emphasis placed on developing more effective study habits, vocabulary development, comprehension improvement, and content textbook reading skills. Opportunities are provided for small group and individual assistance in a laboratory, as well as general classroom setting. Two hours graded credit, three contact hours per week.
120-1 Developmental Basic Skills, Unit Two. A one-semester course designed to prepare the student for GSD 101 and other freshman level courses requiring writing skills. Concentration will be on the sentence, the paragraph and on study skills related to writing. Opportunities provided for individual assistance in a laboratory setting, in addition to classroom instruction. One hour graded credit, three contact hours per week.
130-1 Developmental Basic Skills, Unit Three. A one-semester course designed to prepare the student for freshman mathematics and other mathematics courses. Concentration will be on arithmetic and algebraic skills and on study skills related to mathematics. Opportunities are provided for individual assistance in a laboratory setting, in addition to the classroom instruction. One hour graded credit, three contact hours per week.
140-1 Developmental Basic Skills, Unit Four. Basic training in speaking and listening skills necessary for interviewing, making reports, participating in group and public speaking.

Biological Sciences (Major)

The biological sciences major consists of courses selected from the Departments of Botany, Microbiology, Physiology, and Zoology. Students selecting biological sciences as their major do not need to take a minor. Besides enrolling in biological sciences courses, students are also required to take courses in chemistry and mathematics. Students should consult their advisers for additional information.

Bachelor of Arts Degree, College of Science

General Studies Requirements 45

Supplementary College of Science Requirements	8
Foreign Languages	(4) + 4
Mathematics 110a,b or 111 (or its equivalent) or 140, or 141	(4) + 1
Chemistry 224, 225	(4) + 3
Requirements for Biological Sciences	40
Physiology 210	5
Biology 305, 306, 307, 308, 309 (any two)	6
Botany 200 and 201, 204 and 205	8
Microbiology 301, 302	7
Zoology 220 a,b	8
Biological sciences electives at 400-level	6
Electives	27
Total	120

Bachelor of Science Degree, College of Education

Students planning to obtain their degree in the College of Education must satisfy all the requirements of that college. The requirements in biological sciences will be the same as those in the College of Science. Those students desiring to attain a secondary education teaching certificate must also enroll in Curriculum, Instruction, and Media 468. See Teacher Education Program, page 77.

Minor

A minor in biological sciences consists of a minimum of 24 hours and may be taken in the College of Education, the College of Liberal Arts, or the College of Science. It must include two of the following biology courses: Biology 305, 306, 307 (6 hours), plus 9 hours selected from the following courses: GSA 208, 209, 303, 312, 313; Botany 200, 201, 204, 205; Microbiology 301, 302; Physiology 410a,b; and Zoology 220a,b. The remaining nine hours may be selected from courses offered by the departments of botany, microbiology, physiology, and zoology. A student with a major in one of the life sciences may not take a minor in biological sciences.

Biology (Courses)

Courses

210-2 to 6 Biology Field Studies. A trip of from two to six weeks to acquaint students with organisms in various environments or with methods of field study, collection, and preservation. Students will incur costs for food, lodging, and transportation. Prerequisite: consent of instructor.

305-3 Genetics-Classical and Molecular. Broad principles of genetics, including Mendelism, chromosomal behavior, genetic mapping and mutation, Allelism, genes and development, polygenic systems, inbreeding and outbreeding, and genetic applications.

306-3 Cell Physiology. The basic functions of the cell are considered. The biochemical basis and mechanisms of the cellular processes, the functions of the subcellular structures, and their ramifications will be explored in the context of plant and animal cells.

307-3 Environmental Biology. Broad principles of ecology on the organismic, the population, the community, and the ecosystem level. Includes environmental factors, adaptations, energy and material balance, succession, and human ecology.

308-3 Organismic Functional Biology. Fundamental principles and biological examples of basic phenomena characteristic of organisms, including transport, integration, and reproductive systems. Detailed attention will be given to various organ systems with an emphasis on function.

309-3 Developmental Biology. Principles of development; causal mechanisms, cybernetic and phylogenetic aspects. Lecture course.

315-2 History of Biology. The interrelationships between the development of biological knowledge and the history of the human races.

Black American Studies (Minor, Courses)

Black American studies is a part of the Division of Social and Community Services.

The Black American studies program will plan a program for a special major leading to the Bachelor of Science degree in the College of Human Resources. Any student interested in such a program should consult this catalog for an explanation of the special major, and then contact the academic counselor in Black American studies in order to plan and receive approval for the program.

A minor in Black American studies consists of a minimum of 20 hours which are to be selected from Black American studies course offerings and organized according to each individual student's field of interest. An official minor is subject to approval by the coordinator of Black American studies.

Courses

209-3 Introduction to Black American Studies. A survey course providing students with insights into various disciplines and how these disciplines approach the Black American experience. Lecturers of diverse interests attend to specific and general problems in their field and hope to enlighten and expand the awareness of the need for scholarly study of Blacks.

225-3 Social Change in Africa. Examination of the interplay between tradition and modernity in an effort to understand the new Africa. Some of the forces of social change are analyzed. Other topics include African women and the family structure in change and the problems of African development.

230-3 Introduction to Black Sociology. An introductory course which focuses on the concepts of Black sociology in order to fill the gaps of "traditional sociology" pertaining to the Black experience. Designed to heighten the student's awareness of the Black identity and the sociological phenomena which affect it and acquaints the student with specific sociological problems in the study of Afro-Americans. Prerequisite: GSB 109.

257-1 Black American Studies Choir. Prerequisite: consent of instructor.

311-6 (3, 3) Black American History. (Same as History 372.) **(a)** Black American History to 1865; **(b)** Black American History since 1865. The role of Blacks and contribution in the building of America and the ongoing fight for equality.

314-6 (3, 3) History of Africa. (Same as History 387a,b.) **(a)** History of Africa. A study of West African peoples from earliest times to the present; including the era of kingdoms; the role of Islam; African-European relations; colonialism; and African nationalism. **(b)** History of East-Central Africa. A study of East and Central African peoples from earliest times to the present; including migrations and kingdoms; African-Arab-European relations, colonialism, and African nationalism.

320-3 Leaders of the Black World. A study of black rulers; governmental representatives; activists; and thinkers; both past and present; in Africa; the West Indies; and the United States, with emphasis on the effects of their philosophies in the black world.

330-3 Black American Social Problems. Comparative study of the social problems which afflict black Americans and other minorities and their consequences; including crime and delinquency, mental and emotional disorders, drug addiction, housing conditions, poverty and unemployment, and labor conditions. Prerequisite: consent of instructor.

332-3 Black Americans and the Law. Focuses on the effect of the American legal system upon the Afro-American from slavery to the present; uses theory and knowledge from the law, history and sociology; will explain the historical perspectives of specific laws as well as their effect upon the Afro-American.

333-4 The Black Family. Exploring the myths and realities of the black family from a sociological perspective. Prerequisite: 230 or junior standing.

336-4 The Black Personality. Examines current areas of interest in the study of the psycho/social characteristics of Black Americans. Theoretical and empirical data will be examined. Considers critical issues as cognitive development; self-concept, socialization process and inter- and intra-group relations. Prerequisite: consent of department.

339-3 Black Americans and the Correctional Process. Analysis of selected topics: the prison community and the Black inmate; correction education and the Black inmate; and the Black professional. Prerequisite: 332.

345-3 Law and Civil Liberties. (See Political Science 332.)

350-3 Contemporary Black Drama. Surveys in the works of major and minor writers of contemporary Black dramas from *A Raisin in the Sun* to *No Place to Be Somebody.* Explores recent criticism on Black theater, and approaches oral and written criticism from

the point of view of "Black aesthetics." Prerequisite: GSC 201, GSC 203, or consent of department.
355-3 The Black American Novel Since Native Son. The Black American novel and its major themes since Richard Wright's *Native Son.* Includes such authors as Baldwin, Petry, Williams, etc. Prerequisite: GSC 210, GSC 325, junior standing, or consent of instructor.
357-3 Blacks in the Performing Arts. History of the role of blacks in the performing arts covering dance companies, ballet, folk dance and Black dramatists; cinema, in all its forms; radio and television; and music (spirituals, jazz, opera, classics, etc.) Prerequisite: GSC 325, or consent of department.
358-3 Black Theater Workshop. Designed to train students in the arts of the theater. While major emphasis is placed on acting techniques, opportunities for training in makeup design and oral interpretation are also provided.
362-3 The Music of Black Americans. (See Music 372.)
370-3 Bibliography of Black American Studies. An introductory survey of Black American bibliographic resources course, culminating with students' compilation of a selective, annotated bibliography covering some chosen aspect of the black experience. Prerequisite: junior or senior standing or consent of instructor.
380-2 Regional Geography of Subsaharan Africa. (See Geography 365.)
385-4 Myth and Ritual in Archaic Religion. (See Religious Studies 333.)
391-2 Social Services and Minority Groups. (See Social Welfare 391.)
395-3 Investigative Procedures and Techniques for the Affirmative Action Officer. Designed to provide students with the basic skill of investigating equal employment opportunities and affirmative action complaints that might be filed by one who feels discriminated against in the hiring process and upward mobility within an agency. Study and research of existing cases filed with FEPC and EEOC.
399-3 to 5 Independent Study in Black American Studies. Independent study which examines problems and issues not covered in a specific course. Hours and subject matter decided during consultation with a faculty member. Prerequisite: consent of instructor. Elective Pass/Fail.
430-3 Black Political Socialization. Definitive approach to how people learn about politics focusing on Blacks because of their unique experience; i.e., prolonged minority group status. Research oriented, in that, it takes an explanative and predictive approach to produce models of political learning. Not for graduate credit. Prerequisite: 230, junior or senior standing, or consent of department.
445-3 Race and Politics. (See Political Science 429.) Not for graduate credit.
455-2 to 12 Rehabilitation Services with Special Populations.
465-3 Governments and Politics of Sub-Saharan Africa. (See Political Science 465.)
475-3 Sociological Effects on Black Education. A teacher-oriented course dealing with up-to-date research in Black and minority education. The instructor utilizes the findings of current periodicals to present models for understanding and communicating with Black children. Not for graduate credit. Prerequisite: Education 303 or consent of department.
480-4 to 8 (4, 4) Seminar in Black Studies. Analysis of the black experience directed toward practical contributions in the area studied. Topics vary with instructor. May be repeated once for a total of eight credits provided registrations cover different topics. Topics announced in advance. Prerequisite: GSB 109 or consent of department.
490-1 to 3 Cross-Cultural Rehabilitation. (See Rehabilitation 419.) Not for graduate credit.
499-1 to 5 Special Readings in Black American Studies. Supervised readings for students with sufficient background. Registration by special permission only. Offered on demand. Prerequisite: consent of instructor.

Botany (Department, Major, Courses)

Botany is a broad science that includes many specialties. A major in botany should be considered by those wishing to specialize in teaching and/or research in the plant sciences and related fields.

Students planning to major in botany should consult with the chairperson of the department for information concerning the programs in the department.

As a general rule, students who intend to apply for admission to a graduate school to study for an advanced degree in botany should include the following in their undergraduate program: inorganic and organic chemistry, mathematics through calculus, a modern European language, and as many botany and biology courses as time and scheduling will permit.

An honors program is available to those juniors and seniors in botany who have an overall grade point average of 3.00 or better and an average in botany courses

of 3.25 or better. Honors students should enroll in Botany 492 during some semester in both junior and senior years.

Bachelor of Arts Degree, College of Science

General Studies Requirements	45[1]
Supplementary College of Science Requirements	7
Foreign Language	(4) + 4
Mathematics 110a,b or 111 (or its equivalent), or 140	(4) + 1
Physical Sciences (Not General Studies)	(4) + 2
Requirements for Major in Botany	43-48[2]
Biology 305, 307	6
Botany 200, 201, 204, 205, 304, 320, 335, 337	19
Botany electives (to be selected from Botany offerings excluding Botany 160, 257, 258, 259, 462, 490, 491; and may include up to a total of 6 hours selected from Botany 390, 391, and 492)	16
Chemistry	(6) + 2-7[3]
Option A: Chemistry 140a,b	
Option B: Chemistry 224, 225, 340, 341	
Electives	20-25
Total	120

[1]The 45-hour requirement may be reduced by taking College of Science or major requirements which are approved substitutes for General Studies courses.
[2]Botany requirements satisfy the biological and physical sciences requirements for the College of Science and may be substituted for a maximum of 12 hours in General Studies.
[3]Option B is recommended for those interested in plant physiology or graduate study.

Bachelor of Science Degree, College of Education

Students planning to obtain their degree in the College of Education must satisfy all the requirements of that college. The requirements in botany must total 32 semester hours, including Botany 200, 201, 204, and 205. Those students desiring to attain a secondary education teaching certificate must also enroll in Curriculum, Instruction, and Media 468. See Teacher Education Program, page 77.

Minor

A minor in botany consists of a minimum of 16 semester hours, selected from any botany offerings except 160, 257, 258, 259, 390, 391, 462, 490, 491, or 492.

Courses

For all field courses in botany, students will be assessed a transportation fee. In addition, certain courses may require the purchase of additional materials and supplies, generally $1 to $5 in total cost.

160-3 Integrated Science — A Process Approach. An interdisciplinary science course stressing processes of science; observing, classifying, using numbers, measuring, using space-time relationships, communicating, predicting, inferring, defining operationally, formulating hypotheses, interpreting data, controlling variables,, and experimenting.

200-3 General Botany. An introduction to botany. Emphasis is placed on structure and development and associated physiological phenomena. Consideration also is given to basic aspects of plant genetics, classification, evolution, ecology, and conservation.

201-1 General Botany Laboratory. Exercises in observation and experimentation on plant structure and development and associated physiological phenomena. Prerequisite: 200 or concurrent enrollment.

204-3 Botany — Plant Diversity. An evolutionary approach to the study of major plant groups — algae to flowering plants. Emphasis will be given to practical aspects of various plant groups in relation to people and their environment. Prerequisite: 200 or consent of instructor.

205-1 Botany — Plant Diversity Laboratory. Cytological, anatomical, and morphological study of selected representatives of major plant groups. All labs are coordinated with lectures in 204. One two-hour laboratory per week. Prerequisite: 204 or concurrent enrollment.

257-2 to 8 Concurrent Work Experience Credit. Practical experience in a laboratory or

other work directly related to course work in the botany program and to the student's educational objectives may be used as a basis for granting credit in botany. Credit for ongoing work experience must be arranged prior to registration, is sought by petition to the department chairperson via the departmental undergraduate adviser, and requires the approval of the department chairperson, the executive officer of the student's major program if other than botany, and the dean of the College of Science. Mandatory Pass/Fail.

258-2 to 8 Previous Work Experience Credit. Practical experience in a laboratory or other work directly related to course work in the botany program and to the student's educational objectives may be used as a basis for granting credit in botany. Credit for past work experience is sought by petition to the department chairperson via the departmental undergraduate adviser and requires approval of the department chairperson, the executive officer of the student's major program if other than botany, and the dean of the College of Science. No grade for past work experience.

259-2 to 8 Vocational Education Credit. Formal, post-secondary educational credit earned in a military service or other vocational technical or occupational program and directly related to the student's educational objectives may be used as a basis for granting credit in botany. Credit is sought by petition to the department chairperson via the departmental undergraduate adviser and requires approval of the department chairperson, the executive officer of the student's major program if other than botany, and the dean of the College of Science.

304-3 Plant Classification. Identification of local flora by use of various manuals. Survey of taxonomy and nomenclature. Every semester. Prerequisite: 200 or equivalent.

308-3 Taxonomy of Cultivated Plants. Identification of woody and herbaceous cultivated plants and discussion of their use as ornamentals. Prerequisite: consent of instructor.

320-4 Elements of Plant Physiology. The functions of plants and their relation to the various organs. Two lectures and four laboratory hours per week. Every semester. Prerequisite: 200; organic chemistry or a minor in chemistry.

335-2 Methods in Genetics. Selected organisms and techniques illustrating genetic principle. Two two-hour laboratories per week. Prerequisite: Biology 305 or equivalent.

337-2 Ecology Laboratory. Techniques in vegetation analysis and environmental measurements. One four-hour laboratory per week. Prerequisite: Biology 307 or equivalent.

390-1 to 3 Readings in Botany. Individually assigned readings in botanical literature. Every semester. Prerequisite: consent of departmental chairperson.

391-1 to 4 Special Problems in Botany. Individual laboratory or field work under supervised direction: **(a)** anatomy, **(b)** bryology, **(c)** ecology, **(d)** morphology, **(e)** mycology, **(f)** paleobotany, **(g)** pathology, **(h)** photography, **(i)** phycology, **(j)** physiology, **(k)** systematics. Every semester. Prerequisite: consent of departmental chairperson.

400-4 Plant Anatomy. An introduction to cell division, development, and maturation of the structures of the vascular plants. Laboratory. Prerequisite: 200 or consent of instructor.

404-4 The Algae. A phylogenetic approach to the study of algae with emphasis on comparative cytology, morphology, and ecology. Laboratories include a detailed survey of freshwater algae and a general treatment of representative marine forms. Two lectures and two two-hour laboratories per week. Prerequisite: 204 and 205 or consent of instructor.

405-4 The Fungi. A survey of the fungi — their structure, development, relationships, ecological roles, and economic importance. Two lectures and two laboratories. Prerequisite: 204 or equivalent.

406-3 Bryology. Structure, development, and relationships of the liverworts, hornworts, and mosses. Two lectures and one laboratory per week. Prerequisite: 204 or equivalent.

409-3 Field Mycology. The taxonomy, ecology, and distribution of fungi in southern Illinois and environs with emphasis on techniques of specimen collection, preservation, identification, and recognition. Prerequisite: 200; 204 recommended.

410-3 Taxonomy and Ecology of Bryophytes and Lichens. Floristic studies of the moss, liverwort, hornwort, and lichen communities of southern Illinois. Prerequisite: 200 or equivalent, or consent of instructor.

411-3 Morphology of Ferns and Fern Allies. The study of external form, internal structure, and relationships of ferns and fern allies. Two lectures and one laboratory per week Prerequisite: 204; 400 recommended.

412-3 Morphology of Gymnosperms. The study of external form, internal structure, and relationships of gymnosperms. Two lectures and one laboratory per week. Prerequisite: 204; 400 recommended.

413-3 Morphology of Angiosperms. The study of external form, internal structure, and relationships of the flowering plants. Two lectures and one laboratory per week. Prerequisite: 204; 400 recommended.

414-3 Paleobotany. (Same as Geology 414) The study of external form, internal structure, and relationships of plant fossils. Two lectures and one laboratory per week. Prerequisite: 204; 400 recommended.

421-4 Botanical Microtechnique. Introduction to practical methods of preservation and

preparation of plant materials for laboratory and microscopic study. Paraffin and plastic embedding and sectioning techniques, and use of general and histochemical stains stressed. Includes chromosome squashing, whole-mount preparation, photomicrography, and other techniques. One lecture and three laboratories per week. Prerequisite: 200 or equivalent.

425-10 (5, 5) Advanced Plant Physiology. **(a)** Intermediary plant metabolism. Characterization of the photosynthetic and metabolic pathways of biosynthesis and degradation of organic constituents; role of environmental regulants of plant metabolism. **(b)** Physics of plants; membrane phenomena; water relations; mineral nutrition. Prerequisite: 320 and consent of instructor.

439-2 Natural Areas and Rare and Endangered Species. Evaluation of the natural area preservation concept with emphasis on how to detect natural areas and methods to preserve them. Emphasis on the rare and endangered species program, its significance, and its methodology. Prerequisite: 304, Biology 307.

440-3 Grassland Ecology. A study of grassland structure and function in relation to various biotic and abiotic factors. Cost of field trips ($5.) and textbooks must be incurred by the student. Prerequisite: 304 and Biology 307 or equivalent.

443-4 Forest Ecology and Reclamation. Soil, climatic, and genetic factors affecting tree distribution and growth in disturbed and natural habitats. Saturday field trips. Prerequisite: 307 or equivalent.

444-4 Analysis and Classification of Vegetation. Includes concepts and analytical methods pertaining to plant community energetics, nutrient dynamics, succession, vegetation classification and niche theory. Laboratory will include the application of these concepts and methods to field situations. Cost of textbooks and travel fee ($15.) must be incurred by the student. Prerequisite: Biology 307 or equivalent.

446-4 Tropical Ecology. Two weeks of marine ecology on the atolls and extensive barrier reef off the coast of Belize, British Honduras, and two weeks of terrestrial ecology at several locations inland. Cost varies yearly. Summer. Prerequisite: advanced undergraduate or graduate standing in one of biological sciences, and concurrent enrollment in Zoology 446.

447-2 to 6 Field Studies in Latin America. Two to six weeks of intensive field work to acquaint students with the flora and vegetation in various environments of Latin America and with ecological and taxonomic field techniques. Cost varies with type of study and location. Transportation cost: $80.00. Prerequisite: advanced standing in one of the biological sciences and consent of instructor.

448-3 to 8 Field Studies in the Western United States. Three to six weeks of intensive field work designed to acquaint students with the flora, vegetation, and environments of the Rocky Mountains and adjacent areas. Both ecological and taxonomic field methods are emphasized. Transportation cost ($100), travel expenses, and textbooks must be incurred by the student. Prerequisite: 304, Biology 307 or equivalents, and consent of instructor.

449-2 Elements of Taxonomy. Principles of taxonomy including historical sketch, phyletic concepts, classical and experimental methods. One lecture and three laboratory hours per week. Prerequisite: 304 or equivalent, or consent of instructor.

450-2 Plant Geography. World distribution of plants related to environmental, floristic, and historical factors. Prerequisite: interest in biology.

451-4 Upland Flora. The taxonomy, ecology, and distribution of the natural vegetation in and around upland habitats of the Mississippi Basin. Prerequisite: 304 or GSA 303 or consent of instructor.

456-4 Introductory Pathology. A study of plant diseases caused by fungi, bacteria, and viruses. Special attention given to diseases of southern Illinois plants. Laboratory and field trips.

457-3 Forest Pathology. A study of the nature and control of tree diseases in forests, parks, streets, and nurseries. Fungal diseases are stressed.

460-3 Application of Statistical Techniques in Botanical Research. Techniques of data handling and graphical representation, use of statistical tests, design of experiments and interpretation of results, and preparation of science papers. Students will choose individualized projects in the greenhouse, laboratory, field, computing center, or library. Two lectures per week plus conferences on projects. Prerequisite: ten hours in botany or equivalent.

462-4 Science Process and Concepts for Teachers of Grades N-8. (Same as Curriculum, Instruction, and Media 427.) Specifically designed to develop those cognitive processes and concepts needed by elementary teachers in the teaching of modern science programs. Lecture three hours per week, laboratory two hours per week. One or two additional field trips required.

484-3 Palynology. (See Geology 484.)

485-2 Botanical Literature. A survey of the major classical and modern writings in the botanical sciences. This includes a consideration of the primary subdivisions; systematics, structure, physiology, genetics, and ecology. In addition, periodicals will be treated. Prerequisite: consent of instructor.

490-3 Photographic Methods in Scientific and Biological Photography. Black and white and color. Specimen photography, macrophotography. Slides for presentation, materials and methods used in scientific publications. Prerequisite: consent of instructor.

491-3 Scientific Illustration. Materials and methods used in illustrating scientific publications including two-dimensional graphs, maps, lettering, and line drawings. Three dimensional techniques will also be covered. Prerequisite: consent of instructor.
492-2 to 6 Honors in Botany. Individual research problems available to qualified juniors and seniors. Prerequisite: consent of department chairperson.
500-3 Advanced Plant Anatomy.
503-10 (5, 5) Advanced Angiosperm Taxonomy.
524-2 Advanced Plant Genetics.
525-3 Cytology.
526-4 Cytogenetics.
532-3 Embryogenesis and Organography of Plants.
533-4 Plant Growth and Morphogenesis.
535-2 Energetics of Aquatic Ecosystems.
542-2 Biosystematics.
543-2 Tree Growth.
551-3 Upland Flora.
552-3 Lowland Flora.
570-2 to 3 Graduate Readings in Botany.
580-1 to 6 (1 per semester) Seminar.
584-3 Advanced Palynology.
585-2 to 6 (2 per semester) Advanced Topics in Systematics.
589-1 to 12 (1 per topic per semester) Seminars in Botany.
590-1 to 3 Introduction to Research.
591-2 to 9 Research.
599-2 to 9 Thesis.
600-1 to 36 (1 to 12 per semester) Dissertation.
601-1 to 12 per semester Continuing Research.

Business Administration (Major [Graduate only], Courses)

The graduate faculty in business administration, consisting of members of the departments of Accountancy, Administrative Sciences, Finance, and Marketing of the College of Business and Administration, offers graduate work leading to the Master of Business Administration degree. The MBA program has as its objective the development of professional managers and executives to serve the needs of business and government and to prepare interested graduates for doctoral study. The program has been structured with flexibility so as to serve holders of baccalaureate degrees in business administration as well as those who hold degrees in other disciplines. For a more complete description of the program, refer to the Graduate Catalog.

Courses

410-3 Accounting Concepts. Interpretation and critical analysis of reports, statements, and other accounting data from the viewpoint of users of financial information. Restricted to MBA students. Prerequisite: enrollment in MBA program or consent of instructor.
430-3 Business Finance. An introductory course combining both a description of the structure of business financing and an analysis of functional finance from a managerial viewpoint. Prerequisite: enrollment in MBA program or consent of instructor.
440-3 The Management Process. Analysis of management theories and the administrative process. Specific managerial activities are analyzed and discussed. Functional relationships in administered organizations are explored. Prerequisite: enrollment in MBA program or consent of instructor.
450-3 Introduction to Marketing Concepts. An overview of the role of marketing within an economic system and of the major marketing activities and decisions within an organization. Emphasis is on developing an understanding of the marketing process. Prerequisite: enrollment in MBA program or consent of instructor.
451-5 Methods of Quantitative Analysis. (See Mathematics 457.)
500-3 Research Applications in Business and Organizations.
501-3 Operations Research I.
502-3 Business in Our Capitalistic Society.
510-3 Managerial Accounting and Control.
511-3 Accounting Theory.
512-3 Auditing Concepts and Methods.
514-3 Controllership.

515-3 Accounting Informations Systems.
516-3 Seminar in Taxation.
519-3 Seminar in Accounting.
521-3 Business Conditions Analysis.
526-3 Managerial Economics.
530-3 Financial Management.
531-3 Advanced Financial Management.
532-3 Financial Institutions and Markets.
533-3 Investment Concepts.
539-3 Seminar in Finance.
540-3 Managerial and Organization Behavior.
541-3 Operations Research II.
543-3 Personnel Management.
544-3 Production-Operations Management.
549-3 Seminar in Administration.
550-3 Marketing Management.
551-3 Product Strategy and Management.
552-3 Advanced Marketing Research and Analysis.
555-3 Consumer Behavior.
559-3 Seminar in Marketing.
580-3 International Business Operations.
591-3 Independent Study.
598-3 Business Policies.
599-3 to 6 Thesis.
601-1 to 12 per semester Continuing Research.

Business and Administration (Major)

The Bachelor of Science degree program with a major in business and administration is a college-wide degree which is intended for those students with personal and professional goals which cannot be met by one of the existing majors, i.e., accounting, administrative sciences, business economics, finance, or marketing, available in the college and in addition have an interest in subject areas offered in other schools and colleges of the University. The program requires students to combine interests — business with an outside field — into a unique program. For example, a student with international business interest can combine business and administration with foreign languages; a student interested in going into the restaurant business can combine course work in food and nutrition with business and administration. The outside field, or secondary concentration, would have to be consistent with a specific career objective or personal development plan and at least 15 semester hours must be structured to achieve this objective. Individual programs would be subject to the approval of the dean of the College of Business and Administration.

Bachelor of Science Degree, College of Business and Administration

General Studies Requirements	45-46
Professional Business Core (See page 74)	47-48
Requirements for Major in Business and Administration	15-23
Secondary concentration approved by the dean	
Electives	3-13
Total	120

Business Economics (Major)

The business economics major offered through the College of Business and Administration emphasizes the application of economic concepts and the use of critical analysis to the solution of economic and managerial problems.

This undergraduate program is an excellent general preparation for future

managerial and staff assignments in a variety of business and public organizations. The program also prepares students for graduate study in economics as well as for the Master of Business Administration (MBA) degree.

Those students who desire professional careers as business and managerial economists are advised to plan to complete one to four years of postgraduate study.

Bachelor of Science Degree, College of Business and Administration

General Studies Requirements	45-46
Professional Business Core (See page 74)	47-48
Requirements for Major in Business Economics	15-18
Administrative Sciences or Economics 479	3
Economics 315, 340, 341	9
Finance 475	(3)[1]
Two courses from the following list, one of which must be in economics	3-6
Economics 310, 330, 329, 436, 443, 465, 467	
Accounting 341, 365, 405	
Administrative Sciences 345, 352, 361	
Finance 323, 325, 480	
Marketing 341, 390, 435	
Electives	8-13
Total	120

[1]Hours shown in parentheses are already included in total of hours shown for professional business core.

Business Education

(SEE VOCATIONAL EDUCATION STUDIES)

Chemistry and Biochemistry (Department, Major [Chemistry], Courses)

The Department of Chemistry and Biochemistry offers three degree programs with a major in chemistry. The first is the Bachelor of Science degree in the College of Science. This degree is for those who wish to prepare for graduate study in chemistry or who will become professional chemists. Students completing this degree program will be certified by the American Chemical Society.

The second is the Bachelor of Arts degree in the College of Science. This program is designed primarily for students who wish to complete a major in chemistry, but who plan to eventually go into other professional areas such as medicine, dentistry, or business.

The third program of study leads to the Bachelor of Science degree in the College of Education. This degree program is administered by the College of Education. It is provided for those students who wish to become secondary school chemistry teachers.

Among the new professions which have arisen because of the increasing complexity and interdisciplinary nature of scientific and technological problem solving is that made up of chemists whose interests are in management, marketing, and production rather than research and development. Students who recognize an early interest in a combined chemistry and business career can plan their programs around the Administration Option. This is a cooperative program between the Department of Chemistry and Biochemistry and the College of Business and Administration. For further information contact the department chairperson or undergraduate adviser.

Candidates for admission to degree programs are required to have a 2.0 grade point average in chemistry courses. However, students with grade point averages in chemistry courses below 2.25 can expect to have difficulty in advanced courses.

A knowledge of German and of computer programming is recommended for all majors in chemistry.

Students taking a laboratory course will be required to purchase a notebook or a laboratory exercise book costing from $1.50 to $8.50. All students enrolled in a chemistry class that includes a laboratory session will be assessed a breakage charge for all glassware broken. The amount assessed will be based on actual replacement costs.

Bachelor of Science Degree, College of Science

CERTIFIED BY THE AMERICAN CHEMICAL SOCIETY

General Studies Requirements		45[1]
Supplementary College of Science Requirements		5
Foreign Language (German)	(4) + 4	
Mathematics 110a,b or 111	(4) + 1	
Biological Sciences (not general studies)	(6)[1]	
Requirements for Major in Chemistry		63
Chemistry 224 and 225 or 222a,b; 226, 344 and 345; 346 and 349; 462a, b; 434; 411; and 490. In addition, two courses from among 436; 446; 450 (451a,b may be substituted for 450 but will count as only one course); 412; 416; 455; 471; and 491, but at least one must be from among 436, 446, 450. The total hours must be at least 48	(3) + 45	
Mathematics 150, 250, 251, 305	14	
Physics 205a,b and 255a,b	(4) + 4	
German 126a,b	(8)[2]	
Electives		7
Total		120

[1]The 45 hour requirement may be reduced by taking College of Science or major requirements which are approved substitutes for General Studies courses.
[2]Russian or French may be substituted with departmental permission.

Bachelor of Arts Degree, College of Science

General Studies Requirements		45[1]
Supplementary College of Science Requirements		5
Foreign Language	(4) + 4	
Mathematics 110a,b or 111	(4) + 1	
Biological Sciences (not general studies)	(6)[1]	
Requirements for Major in Chemistry		53-57
Chemistry 224 and 225 or 222a,b; 226; 344 and 345 plus 346 and either 347 or 349; either 462a,b or 460; 434; plus additional courses to give a minimum of 34 hours	34-38	
Mathematics 150, 250, and 251 or 305 (251 is prerequisite to Chemistry 462a,b)	11	
Physics 205a,b and 255a,b[2]	8	
Electives		13-17
Total		120

[1]The 45 hour requirement may be reduced by taking College of Science or major requirements which are approved substitutes for General Studies courses.
[2]Certain other courses may be substituted with permission of the department.

Bachelor of Science Degree, College of Education

General Studies Requirements	45[1]

Requirements for Major in Chemistry	40-47
Chemistry 224 and 225 or 222a,b; 226; 344 and 345 plus 346 and either 347 or 349; 462a,b or 460	(4) + 23-30
Mathematics 111 and 110a,b, 150, 250 and 251 or 305 recommended (251 is prerequisite to Chemistry 462a,b)	(4) + 12
Physics 203a,b and 253a,b or 205a,b and 255a,b	(3) + 5
Modern foreign language recommended	
Professional Education Requirements	25
See Teacher Education Program, page 77. Secondary education majors must take a special methods course. Curriculum, Instruction and Media 468 fulfills this requirement.	
Electives	3-10
Total	120

[1]Refer to Professional Education Experience for General Studies courses which may be required.

Minor

The minor in chemistry requires a minimum of 16 semester hours including 222a,b or 224 and 225. Elective courses must be selected with at least one course in each of two different areas of chemistry. Recommended courses are 226, 340 and 341, 352 and 460.

Courses

115-3 Introductory General Chemistry. A preparation for Chemistry 224 or 222 for students who have less than a year of high school chemistry. May be audited by students who have had a year of high school chemistry. Two lectures and one hour of recitation per week.

140-8 (4, 4) Chemistry. A two-semester course of general, organic, and biological chemistry designed to meet the needs of students of nursing, dental hygiene, physical therapy, other allied health programs, agriculture, forestry, home economics and other majors with comparable requirements. This course does not satisfy prerequisite requirements for other courses offered by the Department of Chemistry and Biochemistry. It is not applicable to a major or minor in chemistry. Three lectures and one three-hour laboratory per week. Must be taken in a,b sequence.

222-8 (4, 4) Introduction to Chemical Principles. For students majoring in scientific, preprofessional, engineering, or technological programs. Atomic structure, molecular structure and bonding, stoichiometry, properties of gases, liquids and solids, thermodynamics and kinetics, chemical equilibria, pH, electrochemistry. The content of this two semester sequence is equivalent to the one semester offering of 224 plus 225. Two lectures, one laboratory-lecture recitation, and one three-hour laboratory per week. Must be taken in a,b sequence. The student will need a calculator with log and inverse log capability (base 10 or base e). Prerequisite: one year of high school chemistry; or 115; two years of high school algebra or concurrent enrollment in GSD 107.

224-5 Introduction to Chemical Principles. For students majoring in scientific, preprofessional, engineering, or technological programs. Atomic structure, molecular structure and bonding, stoichiometry, properties of gases, liquids and solids, thermodynamics and chemical equilibria, pH, electrochemistry. Four lectures and one recitation per week. The student will need a calculator with log and inverse log capability (base 10 or base e). Prerequisite: one year of high school chemistry, or 115, and concurrent enrollment in 225; two years of high school algebra or GSD 107. The 225 corequisite may be waived for students in those departments where 225 is listed as a required course for graduation.

225-2 Introduction to Laboratory Techniques. For students majoring in scientific, preprofessional, engineering, or technological programs. Introduction to laboratory apparatus and techniques. One three-hour laboratory and one hour of laboratory-lecture per week. Prerequisite: one year of high school chemistry, or 115, and concurrent enrollment in 224.

226-5 Introduction to Quantitative Chemical Principles. Introduction to quantitative chemical determinations. Two lectures, one laboratory-lecture recitation, and two three-hour laboratories per week. A reasonable knowledge of logarithms and algebra is assumed. The student will need a calculator with log and inverse log capability (base 10 or base e). Prerequisite: 222b, or 224 plus 225. Elective Pass/Fail.

340-4 Survey of Organic Chemistry. A basic survey course of organic chemistry. This course does not satisfy the prerequisite requirement for Chemistry 450 or 451. Four lec-

tures per week. Prerequisite: 222b, or 224 plus 225. Concurrent enrollment in 341 is recommended.

341-2 Organic Chemistry Laboratory. One three-hour laboratory and one laboratory-lecture per week. Prerequisite: 222b, or 224 plus 225. Concurrent enrollment in 340 is recommended.

344-4 Organic Chemistry. A fundamental introduction to the chemistry of carbon compounds designed for chemistry, and other science majors; premed and predental students, engineers, and others ultimately requiring a year of organic chemistry. Four lectures per week. Prerequisite: 222b, or 224 plus 225. Concurrent enrollment in 345 is recommended.

345-2 Laboratory Techniques. Physical techniques and reactions of inorganic and organic compounds. One three-hour laboratory and one laboratory-lecture per week. Prerequisite: 222b, or 224 plus 225. Concurrent enrollment in 334 is recommended.

346-2 Organic Chemistry. The organic chemistry of compounds of biological interest with emphasis on the mechanistic, structural, and steriochemical approach to organic chemistry. Two lectures per week. Prerequisite: 344 and 345. Concurrent enrollment in 347 or 349 is recommended.

347-3 Laboratory Techniques. A laboratory course for preprofessionals and those wanting a minor in chemistry. Synthesis and reactions of compounds of biological interest. One laboratory-lecture and two three-hour laboratories per week. Prerequisite: 344 and 345. Concurrent enrollment in 346 is recommended.

349-3 Laboratory Techniques. A laboratory course for chemistry majors. Synthesis and structural identification of inorganic and organic compounds, with emphasis on instrumental procedures. One laboratory-lecture and two three-hour laboratories per week. Prerequisite: 344 and 345. Concurrent enrollment in 346 is recommended.

352-4 Survey of Biological Chemistry. A survey of the chemistry and metabolism of biological compounds. A terminal course in biochemistry. Intended for students who have had a one-semester course in organic chemistry and who desire a one-semester survey of biological chemistry. Three lectures and one three-hour laboratory per week. Prerequisite: 340 and GSA 115.

375-1 to 2 Undergraduate Seminar. For juniors and seniors with a major in chemistry. Prerequisite: consent of the department chairperson.

396-4 (2, 2) Chemical Problems. Chemical investigations under the direction and supervision of a faculty member. Prerequisite: consent of instructor and four semesters of chemistry laboratory.

411-3 Intermediate Inorganic Chemistry. Fundamentals of inorganic chemistry, covering bonding and structure, coordination compounds, and the chemistry of some familiar and less familiar elements. Three lectures per week. Prerequisite: 460 or 462a or concurrent enrollment in either.

412-2 Inorganic Preparations. Introduction to modern techniques of syntheses and compound characterization. Synthetic techniques include handling of air-sensitive materials, electrosyntheses, high-temperature reactions, and chemistry of non-aqueous solvents plus modern spectroscopic techniques for characterization. Prerequisite: 226, 347, and 349.

416-3 X-Ray Crystallography. (See Geology 416.) Prerequisite: 224 and 225, or 222b, one year of college physics and Mathematics 150.

431-4 Environmental Analytical Chemistry. Practical applications of common instrumental and wet methods to the determinations of chemical substances in common natural and commercial materials. Techniques will include titrimetry; quantitative transfer of liquids and solids; gas, thin-layer and ion-exchange chromatography; atomic absorption; flame photometry; ion selective electrode potentiometry; and spectrophotometry. The course is intended for senior-level and graduate students in disciplines other than chemistry who desire to know the practical aspects of laboratory measurements. The course is not applicable to a major in chemistry. One lecture, one laboratory-lecture, and two three-hour laboratories per week. Prerequisite: 224 and 225, or 222a,b or nine hours of chemistry excluding general studies courses. Elective Pass/Fail.

434-4 Instrumental Analytical Chemistry. Theory and practice of modern instrumental measurements, including emission and absorption spectroscopic, electroanalytical, and chromatographic methods, and an introduction to applied electronics. Two lectures and two three-hour laboratories per week. Prerequisite: one semester of physical chemistry or concurrent enrollment in 462a or 460.

436-3 Analytical Separations and Analyses. A study of the analyses of complex materials, usually inorganic, with emphasis on separations, functional-group chemical analyses, and instrumental applications. Two lectures and one three-hour laboratory per week. Prerequisite: 434 or equivalent, or consent of instructor.

446-4 Qualitative Organic Analysis. A systematic study of the separation and identification of organic compounds. Two lecture and six hours of laboratory per week. Prerequisite: 226 and either 346 and 349 or consent of instructor.

450-4 Survey of Biochemistry. Function and metabolism of amino acids, proteins, enzymes, carbohydrates, lipids, and nucleic acids. For preprofessional students, chemistry majors, biology majors, and others desiring a terminal one-semester survey of biochemistry. Three lectures and one laboratory per week. Prerequisite: 346 and 347 or 349.
451-6 (3, 3) Biochemistry. **(a)** Chemistry and function of amino acids, proteins, and enzymes; enzyme kinetics; chemistry, function and metabolism of carbohydrates; citric acid cycle; electron transport and oxidative phosphorylation. **(b)** Chemistry, function and metabolism of lipids; nitrogen metabolism; nucleic acid and protein biosynthesis; metabolic regulation. Three lectures per week. Must be taken in a,b sequence. Prerequisite: one year of organic chemistry.
455-4 Biochemistry Laboratory. Modern biochemical laboratory techniques for isolation, purification, and characterization of constituents of living cells and for investigations of pathways, kinetics, energetics, and regulatory mechanisms related to metabolism and enzymic activity. One lecture and eight hours of laboratory per week. Prerequisite: 451a and 226 or concurrent enrollment; graduate standing in the Department of Chemistry and Biochemistry or consent of the instructor.
460-4 Principles of Physical Chemistry. A one-semester course in physical chemistry designed especially for non-chemistry majors. Not for those who intend to be professional chemists. Three lectures and one three-hour laboratory per week. Prerequisite: 226 and Mathematics 150, 140 or 141. Elective Pass/Fail.
462-10 (5, 5) Physical Chemistry. Four lectures and one three-hour laboratory per week. **(a)** Classical thermodynamics and its applications, statistical thermodynamics, and chemical kinetics. **(b)** Quantum mechanics of atoms and molecules, molecular spectroscopy. The laboratory work includes the analysis of data, computational techniques, and typical chemical measurements. Prerequisite: **(a)** 226, Mathematics 251; **(b)** 462a, Mathematics 305 recommended. Must be taken in a,b sequence.
471-2 Industrial Chemistry. A survey of modern industrial chemistry and an introduction to chemical research processes. Two lectures per week. Prerequisite: 346 and 347 or 349.
472-6 (3, 3) X-Ray Crystallography. (See Engineering Mechanics and Materials 402.) Prerequisite: 462b and 463b.
489-1 to 3 Special Topics in Chemistry. Prerequisite: consent of instructor and of chairperson.
490-2 Chemical Literature. A description of the various sources of chemical information and the techniques for carrying out literature searches. Two lectures per week. Prerequisite: 224, 225, 346 and 347 or 349.
491-2 History of Chemistry. The evolution of chemistry from ancient times until 1920. Two lectures per week. Elective Pass/Fail.
496-1 to 8 Undergraduate Research (Honors). Introduction to independent research under the direction of a faculty member culminating in a written report. Not for graduate credit. Prerequisite: a 3.0 grade point average, five semesters of chemistry laboratory including one semester of physical chemistry, consent of instructor and department chairperson.
502-2 Molecular Orbital Theory.
511-6 (3, 3) Advanced Inorganic Chemistry.
519-2 to 9 (2 to 3 per semester) Advanced Topics in Inorganic Chemistry.
531-3 Theory of Chemical Analysis.
532-3 Analytical Chemistry Instrumentation.
535-3 Advanced Analytical Chemistry.
539-2 to 9 (2 to 3 per semester) Advanced Topics in Analytical Chemistry.
541-3 Organic Structure and Reactivity.
542-3 Mechanistic Organic Chemistry.
543-3 Synthetic Organic Chemistry.
549-2 to 9 (2 to 3 per semester) Advanced Topics in Organic Chemistry.
556-7 (3, 4) Advanced Biochemistry.
559-2 to 9 (2 to 3 per semester) Selected Topics in Organic Chemistry.
560-3 Introduction to Quantum Chemistry.
562-6 (3, 3) Advanced Molecular Spectroscopy.
563-3 Quantum Mechanics of Radiation and Particles.
564-3 Statistical Thermodynamics.
569-2 to 9 (2 to 3 per semester) Advanced Topics in Physical Chemistry.
594-2 or 3 Special Readings in Chemistry.
595-1 Advanced Seminar in Chemistry.
597-1 to 15 Professional Training.
598-1 to 50 (1 to 12 per semester) Research.
599-1 to 6 Thesis.
600-1 to 30 (2 to 12 per semester) Dissertation — Doctoral.
601-1 to 12 per semester Continuing Research.

Child and Family (Major, Courses)

The child and family program is a part of the Division of Human Development.

Bachelor of Science Degree, College of Human Resources

CHILD AND FAMILY MAJOR — PRESCHOOL PROGRAMS SPECIALIZATION

These courses offer basic background leading to positions as nursery school director or teacher in private schools, colleges and universities, and day care centers; director or teacher in residential living facilities for exceptional children; child care specialists with social, public health and welfare agencies; home economics extension specialist in child care; and recreational leaders.

General Studies Requirements	45
Including GSB 202, 203, 212, GSD 152	
Requirements for Major in Child and Family	36
Child and Family 227, 237, 337, 345, 346, 366, 445, 456, 466, 471-6	33
Food and Nutrition 100	3
Electives	39
Recommended for Preschool Directors and Teachers: Child and Family 340, 408, 490; Botany 390; Curriculum, Instruction, and Media 455, 453; Art 348; Physical Education 202; Special Education 400; Psychology 301; Music 303, Human Development 481a.	
Recommended for Child Care Specialists in Social Services: Psychology 305, 459; Social Welfare 375, 383, 391; Family Economics and Management 340, 341, 370; Interior Design 131; Special Education 400; Sociology 426, Child and Family 408, 490, Human Development 481a.	
Recommended for Residential Life Directors and Supervisors: Health Education 334; Special Education 400, 401, 402, 403; Speech Pathology and Audiology 104, 316; Music 302; Recreation 300; Social Welfare 375, 383; Psychology 301, 451.	
Recommended for Infant Care Specialists: GSA 115, 302, 314; GSB 321; Child and Family 457; Health Education 334; Psychology 301.	
Total	120

Bachelor of Science Degree, College of Human Resources

CHILD AND FAMILY MAJOR — PRESCHOOL/EARLY CHILDHOOD CERTIFICATION SPECIALIZATION

The preschool/early childhood specialization has been specifically designed to prepare future teachers of children under six and will lead to certification by the State of Illinois. This program is jointly offered with the Department of Curriculum, Instruction, and Media in the College of Education. Students wishing the special education endorsement should select the special education option.[1]

There are sequential steps for admission and retention in the Preschool/Early Childhood Certification specialization.

1. Completion of Child and Family 240, 245, and Curriculum, Instruction and Media 209 with a grade of *C* or higher, an overall grade point average of 2.15, and favorable vote of the Preschool Committee based on the student's performance in the above courses.

2. To be eligible for field experience, a student must have attained a minimum overall grade point average of 2.25, successfully completed Child and Family 240,

[1]Special Education 400 and Speech Communication 444 are required for the special education endorsement.

245, 227, 237, 337, 345, 466, Curriculum, Instruction and Media 209, 317, 318 or Special Education 405, have made preliminary application for field experience and be approved by the coordinator of the Early Childhood/Preschool program based on performance in the above courses.

General Studies Requirements	45
Including GSB 202, 212, 300 or 301, GSC 100, GSD 117 or 119, GSE 201	
Requirements for Major in Child and Family	62
Child and Family 227, 237, 240, 245, 337, 345, 466, 471-6	26
Curriculum, Instruction, and Media 209, 213, 317, 318, 418, 419, 435	21
Food and Nutrition 100	3
Music 303	3
Psychology 301	3
Special Education 400	3
Speech Communication 444	3
Electives	13
Special Education Option, Special Education 405[2], 406, 412, Field experience, 471, must be supervised by University coordinator of field experience.	
Total	120

[2]Special Education 405 is taken in place of Curriculum, Instruction, and Media 318 for students electing the special education option.

Minor

A minor in child and family is intended to provide background that will assist students in pursuing their career goals or other interests. At least 16 hours of Child and Family courses are required as follows:

Child and Family 227, 237	6
Other Child and Family courses	10

Students will be expected to honor prerequisites in their selection of courses.

Courses

See also Human Developent for additional 400 and 500-level courses.

227-3 Marriage and Family Living. A study of relationships and adjustments in family living, designed largely to help the individual. To help student better understand the recent changes that have occurred in marriage and the family in the United States.

237-3 Child Development. Principles of development and guidance of children as applied to home situations. Directed observation involving children of varying ages. Understanding the social, emotional, physical, and intellectual development of children.

240-2 Survey of Careers in Preschool Programs. A survey course to acquaint students with the varied career opportunities, approaches to programming, and professional personnel in working with children under six. Field trips will be taken to area program centers. To be taken concurrently with 245 and Curriculum, Instruction, and Media 209.

245-3 Interpersonal Relationships Seminar. This course is designed with emphasis on realization of one's own potential in wholeness of life pattern and relationships as preparation for work with children, parents, and professional peers. To be taken concurrently with 240 and Curriculum, Instruction, and Media 209.

337-3 Advanced Child Development. Examines the specific behaviors of both parents and teachers to determine the effect they have on the development of children's desirable and undesirable behavior. Prerequisite: 237.

340-3 Instructional Materials and Activities for the Preschool. Provides opportunities to acquire a working knowledge of the purposes of the various types of preschool centers; the roles of the personnel; basic teaching skills; curriculum areas, including objectives, activities, and evaluation; and basis for parent-teacher communication.

345-3 Child Development Practicum. Observation and participation in the guidance of preschool children in the daily routines, preparation and use of materials and equipment for activities. One hour lecture, three hours laboratory. Interaction and involvement with preschool children. Prerequisite: 237.

346-3 Child Development Practicum. Planning and executing a variety of experiences for

preschool children. Three hours seminar, three hours laboratory. Development of skills in preschool management and curriculum development. Prerequisite: 345.
366-3 Family Development. Study of changing patterns in family living throughout the family life cycle. Insight into common current family problems typical of each stage of the family life cycle. Prerequisite: 227 or GSB 341.
408-3 to 9 (3, 3, 3) Workshop. Designed to aid workers in professions related to child and family. Emphasis for the workshop will be stated in the announcement of the course.
410-3 Human Sexuality. Provides detailed in-depth information on such topics as philosophical views of sexual behavior, sex techniques, sex therapy, sexual variations, sexual anatomy and physiology, including the sexual response and changes with age and sexual development in childhood.
445-3 Administration of Pre-School Programs. Planning and organizing programs for preschool or residential facilities including budgeting, staffing, programming, and evaluation. Prerequisite: 345 and 346 or consent of instructor.
456-3 Infant Development. Current theories and knowledge concerning growth and development of infants with related laboratory field experiences. Prerequisite: 237 or Psychology 301 or equivalent.
457-3 Infant Stimulation and Care. Application of theories in infant development in care and stimulation practicum. Development of competencies and skills needed by infant specialists and professionals. Two hours seminar, 4 hours practicum. Prerequisite: 456 or concurrent enrollment.
466-3 Practicum in Parent-Child Study. Designed to increase student's ability to work with parents and parent groups through an awareness of factors in the parent-child relationship and knowledge of current research and methods in parent education. Integration with infant and child development laboratories and related field experience. Prerequisite: 227, 237, or equivalent.
471-2 to 6 Field Experience. Supervised learning experiences in community nursery schools and public agencies. Prerequisite: consent of instructor.
490-3 Introduction to Marriage and Family Counseling. Problems and techniques of premarital, marital, divorce, family, and family crisis counseling. Counseling individuals singly, in family units, and in groups. Prerequisite: 227 or equivalent and consent of instructor.
556-3 The Pre-School Child.
562-3 Child Development through Home and School.
566-3 Interpersonal Relationships within the Family.

Cinema and Photography (Department, Major, Courses)

Cinema and photography courses provide the undergraduate students with a background in the history, theory, and practice of photographic communication. The program is structured to make available a foundation for professional, fine arts, and educational careers in film and photography; to explore the social implications of still and motion pictures; and to provide opportunity for the study of both cinema and still photography as media for personal expression.

The major in cinema and photography requires from 36 to 48 credit hours, depending on the specialization chosen by the student. Six specializations are available within the major: film production, film theory/history, fine arts photography, professional photography, cinema and photography, or photojournalism. The photojournalism sequence is administered jointly by the Department of Cinema and Photography and the School of Journalism.

Students are urged to declare their major as soon as possible. To be admitted to the major, a student must have a grade point average of *C* or better. In order to remain in the specialization within the major, all courses must be passed with a grade of *C* or better and, where applicable, with recommendation to continue in the specialization. Photographic portfolios and/or films must be submitted for entry into some courses. Grades below *C* will not be accepted as fulfilling major or specialization requirements. All Mandatory Pass/Fail courses must be completed with a grade of Pass. Cinema and Photography courses are not available to majors on a pass/fail basis unless designated as Mandatory Pass/Fail.

Cinema students may earn credit toward their Southern Illinois University at Carbondale degree by studying at the Inter-University Film Study Center in Paris. Information about this program is available from the department.

Students provide photographic materials for all cinema and photography production courses. In still photography production courses, students supply their own film, photographic paper, certain specialized chemicals, and a fully adjustable 35mm or 120 roll film camera. Some students have found that owning additional items of equipment is advantageous. A cost of $15 for laboratory materials is charged for each still photography production course. In motion picture production courses students provide their own film, processing, recording materials, and editing supplies. In courses which involve the screening of a number of films, there is a $10 screening fee.

The University reserves the right to retain examples of the work of each student in each photography class, to make and retain prints of all films made as part of course work other than thesis, and to retain copies of student papers. Such photographs, films, or papers become part of a permanent departmental collection.

The Department of Cinema and Photography is currently operating under a strict student retention policy which in effect limits enrollment in advanced courses. Before enrolling in courses students should obtain from the department a copy of the statement governing student retention.

No more than six hours of the following courses may count toward the first 36 hours in any Cinema and Photography specialization: 470A, 491, 495, 497. There is no required minor.

Bachelor of Arts Degree, College of Communications and Fine Arts

CINEMA AND PHOTOGRAPHY MAJOR – FILM PRODUCTION SPECIALIZATION

General Studies Requirements	45
Requirements for Major in Cinema and Photography with a Specialization in Film Production	36
Cinema and Photography 355, 356, 360, 368, 452	17
Cinema and Photography 455 and 456, or 499	4-6
Six hours from the following Group I courses: 460, 461, 464, 468	6
Six hours from the following Group II courses: 462, 463, 465, 468	6
(468 may count toward Group I or Group II requirements but not both.)	
Additional hours to total a minimum of 36	1-3
36 hours minimum; 48 hours maximum in major.	
Electives	39
Total	120

CINEMA AND PHOTOGRAPHY MAJOR – FILM HISTORY/THEORY SPECIALIZATION

General Studies Requirements	45
Requirements for Major in Cinema and Photography with a Specialization in Film History/Theory	36
Cinema and Photography 355, 360, 368, 468	13
Additional hours selected from the following: 460, 461, 462, 463, 464, 465, 470a, 499	23
36 hours minimum; 48 hours maximum in major.	
Electives	39
Total	120

CINEMA AND PHOTOGRAPHY MAJOR – FINE ARTS PHOTOGRAPHY SPECIALIZATION

General Studies Requirements	45
Requirements for Major in Cinema and Photography with a Specialization in Fine Arts Photography	36
Cinema and Photography 310, 311, 320, 322	14
Courses chosen from the following: 420, 421, 422, 423, 425	12

Additional 400-level still photography hours 10
Electives 39
Total 120

CINEMA AND PHOTOGRAPHY MAJOR — PROFESSIONAL PHOTOGRAPHY SPECIALIZATION

General Studies Requirements 45
Requirements for Major in Cinema and Photography with a Specialization in Professional Photography 36
Cinema and Photography 310, 311, 320, 322 14
Courses chosen from the following: 403, 405, 406, 407, 408, 415, 418 12
Additional 400-level still photography hours 10
36 hours minimum; 48 hours maximum in major.
Electives 39
Total 120

CINEMA AND PHOTOGRAPHY MAJOR — CINEMA/PHOTOGRAPHY SPECIALIZATION

General Studies Requirements 45
Requirements for a Major in Cinema and Photography with a Specialization in Cinema/Photography 48
Cinema and Photography 310, 311, 320, 322, 355, 356, 360, 368 28
Additional hours selected from 400-level departmental courses 20
48 hours minimum; 60 hours maximum in major.
Electives 27
Total 120

CINEMA AND PHOTOGRAPHY MAJOR — PHOTOJOURNALISM SPECIALIZATION

General Studies Requirements 45
Requirements for a Major in Cinema and Photography with a Specialization in Photojournalism 36
Cinema and Photography 310 or 311, 320, 322, 407, 408, Journalism 300, 310, 311 26
Additional hours in journalism courses or Cinema and Photography 499 10
36 hours minimum; 48 hours maximum in major.
Electives 39
Total 120

Courses

257-1 to 30 Work Experience. Used to recognize concurrent structured and unstructured work experience related to the student's educational objective. One to 30 hours of credit in 257 and 258 may be applied toward graduation requirements following departmental evaluation and approval.

258-1 to 30 Work Experience. Used to recognize past work experience related to the student's educational objective. One to 30 hours of credit in 257 and 258 may be applied toward graduation requirements following departmental evaluation and approval. No grade for prior work experience.

259-1 to 36 Technical Subjects. Used to recognize credit in cinema and photography earned in art, technical or trade schools above the high school level. One to 36 hours of credit may be applied toward graduation requirements following departmental evaluation and approval of the credit.

310-3 History of Still Photography. History, aesthetics and appreciation of still photography. Covers the period from 1839 to World War II. Students purchase texts. Elective Pass/Fail.

311-3 Contemporary Photography. Uses, styles and influences of contemporary still photography. Covers the period from World War II to the present. Students purchase texts. Elective Pass/Fail.

313-3 Introduction to Photojournalism. (See Journalism 313.)

315-4 Basic Photography for Art Students. Specifically designed to meet the needs of art students. The class will explore basic photographic technique, deal with camera vision and the way it relates to other media, and attempt to cover the special problems and areas of investigation that the art major will encounter. 315 will not be accepted as a substitute for 320 in the cinema and photography program. $15.00 laboratory charge. Elective Pass/Fail.
320-4 Basic Photography. Introduction to photographic communication. Basic camera controls, black and white film and print processing, the use of 35 mm and large format cameras. Students purchase texts and provide photographic materials and chemicals. Each student must have available a fully adjustable camera. $15 cost for additional laboratory materials. Elective Pass/Fail.
322-4 Color Photography. Theory, techniques and aesthetics of color photography. Production of color prints and transparencies. Students purchase texts and provide photographic materials and chemicals. Each student must have available a fully adjustable camera. $15 cost for additional laboratory materials. Prerequisite: 320 and consent of department. Elective Pass/Fail.
355-4 Film Production I. Basic techniques for filmmaking. Production of Super 8 motion pictures. Students purchase texts, film stock and processing. Screening fee. Elective Pass/Fail.
356-4 Film Production II. Techniques of 16mm double system sound film production. Production of films by individuals or crews. Students purchase texts, film stock, processing and sound materials. Screening fee. Prerequisite: 355 and consent of department. Elective Pass/Fail.
360-3 Film Analysis. The relationships among structure, style and meaning in all types of films. Screening fee. Students purchase texts. Elective Pass/Fail.
368-3 Introduction to Cinema Theory. A survey of cinema theories propounded by figures such as Munsterberg, Arnheim, Eisenstein, Bazin, Kracauer, and important modern theorists. The course covers the wide range of major attempts to derive the essence of cinema. Films that exemplify or raise theoretical issues are screened. Screening fee. Students purchase texts. Elective Pass/Fail.
403-3 Studio Portraiture. History, theory and practice of formal studio portrait photography. Students purchase texts and provide photographic materials and chemicals. $15 cost for additional laboratory materials. Prerequisite: 322 and consent of department. Elective Pass/Fail.
405-3 Commercial/Industrial Photography. History, theory and practice of commercial and industrial photography. Students purchase texts and provide photographic materials and chemicals. $15 cost for additional laboratory materials. Prerequisite: 322 and consent of department. Elective Pass/Fail.
406-3 Advertising/Illustrative Photography. History, theory and practice of photography as used for advertising, illustration and editorial purposes. Students purchase texts and provide photographic materials and chemicals. $15 cost for additional laboratory materials. Prerequisite: 405 and consent of department. Elective Pass/Fail.
407-3 Publications Photography I. History, theory and practice of photographic news reporting with emphasis on production and design of picture stories and essays. Students purchase texts and provide photographic materials and chemicals. $15 cost for additional laboratory materials. Prerequisite: 322 and/or consent of department. Elective Pass/Fail.
408-3 Publications Photography II. History, theory and production of picture essays, including research, lay-out, captions and text. Black and white and color. Students purchase texts and provide photographic materials and chemicals. $15 cost for additional laboratory materials. Prerequisite: 407 and/or consent of department. Elective Pass/Fail.
415-3 Technical and Scientific Photography. History, theory and application of photographic research methods in science, technology and medicine. Students purchase texts and provide photographic materials and chemicals. $15 cost for additional laboratory materials. Prerequisite: 322 and consent of department. Elective Pass/Fail.
418-3 Documentary Photography. Survey of the history and theory of documentary still photography. Production of documentary photographic essays dealing in depth with an aspect of contemporary life. Students purchase texts and provide photographic materials and chemicals. $15 cost for additional laboratory materials. Prerequisite: 322 and/or consent of department. Elective Pass/Fail.
420-3 Experimental Camera Techniques. Experimental approaches to the creation of photographic images in the camera. Students purchase texts and provide photographic materials and chemicals. $15 for additional laboratory materials. Prerequisite: 322 and consent of department. Elective Pass/Fail.
421-3 Experimental Darkroom Techniques. Experimental darkroom manipulations of the straight camera image. Students purchase texts and provide photographic materials and chemicals. $15 for additional laboratory materials. Prerequisite: 322 and consent of department. Elective Pass/Fail.
422-3 Advanced Color Photography. Advanced study and production of color photographs with emphasis on experimental techniques using Dye Transfer, Kwik Proof and other forms of photo-mechanical reproduction. Students purchase texts and provide

photographic materials and chemicals. $15 for additional laboratory materials. Prerequisite: 322 and consent of department. Elective Pass/Fail.

423-3 Reconstruction of Color. A study of the principle of color separation in photography as it relates to the processes of dye transfer, silkscreening, lithography, letter press, etching, and other reproduction processes. Students purchase texts and provide photographic materials and chemicals. $15 cost for additional laboratory materials. Prerequisite: 322. Elective Pass/Fail.

425-3 to 9 Studio Workshop. An intensive workshop focusing on current trends in photography as a fine art. Students provide photographic materials and chemicals. $15 for additional laboratory materials. Prerequisite: 322 and consent of department. Elective Pass/Fail.

452-3 Film Planning and Scripting. Analysis of both scripted and non-script films. Script as a basis for production. Practice in preparing film plans, treatments, storyboards and scripts. Students purchase texts. Screening fee. Prerequisite: 355 and/or consent of department. Elective Pass/Fail.

454-3 Graphic/Animated Film Production. Practical course for visual expression related to the graphic film; symbology, composition kinestasis, animation, typography, color and materials. Students purchase texts and materials. Prerequisite: 355 and either 465 or consent of department. Elective Pass/Fail.

455-3 Film Production III. Advanced production by individuals or crews of 16mm sound films from pre-production through shooting. Intensive study of budgeting, production planning, scripting, casting, location and studio shooting techniques, equipment rental, lighting, and double system sound filming. Students provide film stock, processing and sound materials. Screening fee. Prerequisite: 356, 452 and consent of department. Elective Pass/Fail.

456-3 Film Production IV. Continuation of 455 through editing and post production to a first answer print. Intensive study of editing, sound mixing, laboratory procedures and distribution problems. Students provide expendable editing and sound materials and are responsible for laboratory costs. Screening fee. Prerequisite: 455 and consent of department. Elective Pass/Fail.

460-3 History of the Silent Narrative Film. Study of the theatrical film from its beginning to 1930. Screening fee. Students purchase texts. Elective Pass/Fail.

461-3 History of the Sound Narrative Film: 1927-1945. Study of the theatrical sound film from its beginnings to 1945. Screening fee. Students purchase texts. Elective Pass/Fail.

462-3 History of the Documentary Film. Study of the development of the non-fiction film with emphasis on the documentary. Screening fee. Students purchase texts. Elective Pass/Fail.

463-3 History of the Experimental Film. Study of experimentation in cinema from the turn of the century, through the avant garde periods, to contemporary independent films. Screening fee. Student purchase texts. Elective Pass/Fail.

464-3 History of the Contemporary Film. Study of the major movements in theatrical motion pictures from neo-realism to the present. Screening fee. Students purchase texts. Elective Pass/Fail.

465-3 History of the Animated Film. Study of the history, techniques, and aesthetics of the graphic/animated film. Students purchase texts. Screening fee. Elective Pass/Fail.

468-3 Advanced Cinema Theory. An intensive study of the major cinema theoretical approaches that center upon the writings by Eisenstein, Bazin, and recent sign and system scholars. Films important to or exemplary of the theories are screened. Screening fee. Students purchase texts. Prerequisite: 368. Elective Pass/Fail.

470-1 to 9 (1 to 9, 1 to 9, 1 to 9, 1 to 9) Advanced Topics. An advanced course concentrating on special topics in cinema and photography. Topics vary and will be announced in advance. **(a)** Advanced studies in cinema history/theory; **(b)** Advanced studies in film production; **(c)** Advanced studies in photography; **(d)** Advanced studies in interdisciplinary topics. Not more than 6 semester hours may be counted toward the M.A. or M.S. degree. Not more than 6 semester hours of 470, 491, 495, and 497 combined may count toward the first 36 hours for the B.A. in cinema and photography. A screening fee or a $15 fee for laboratory materials may be required. Prerequisite: consent of department.

491-1 to 9 Individual Study in Cinema or Photography. Research in history, theory or aesthetics. Usually taken 3, 3, 3. Not more than 6 semester hours of 470, 491, 495, and 497 combined may count toward the first 36 hours for the B.A. in cinema and photography. Prerequisite: consent of department. Elective Pass/Fail.

492-1 to 3 Practicum. Practical experience in the presentation of photographic theory and procedures. Does not count toward the first 36 hours for the B.A. in cinema and photography. Not for graduate credit. Prerequisite: consent of department. Mandatory Pass/Fail.

495-1 to 12 Internship in Cinema or Photogrphy. Credit for internship with professional film or photographic units. Not more than 6 semester hours of 470, 491, 495 and 497 combined may count toward the first 36 hours for the B.A. in cinema and photography. Not for graduate credit. Prerequisite: consent of department. Mandatory Pass/Fail.

497-1 to 9 Projects in Cinema or Photography. Individual or crew projects in motion picture production or still photography. Usually taken 3, 3, 3. Additional laboratory materials costing $15 required for still photography projects. Prerequisite: consent of department. Elective Pass/Fail.
499-4 Senior Thesis. Preparation of a portfolio, film, research or critical paper under the supervision of a cinema and photography faculty member. Normally taken during last term in residence, the senior thesis is evaluated by the departmental faculty. The department will retain one copy of all theses. Additional laboratory materials costing $15 required for still photography projects. Not for graduate credit. Prerequisite: consent of department. Mandatory Pass/Fail.
591-1 to 6 Individual Study in Cinema and Photography.
595-1 to 4 (1,1,1,1) Graduate Seminar.
597-1 to 16 MFA Projects.
598-1 to 6 MFA Final Creative Project.
601-1 to 12 per semester Continuing Research.

Clothing and Textiles (Major, Courses)

The clothing and textiles program is a part of the Division of Comprehensive Planning and Design.

Students majoring in clothing and textiles may specialize in either apparel design or retailing. A double specialization is available for students with broader interests and goals, and a special major may be planned with approval of the division director. Requirements for a minor in clothing and textiles are also shown.

Bachelor of Science Degree, College of Human Resources

CLOTHING AND TEXTILES MAJOR — APPAREL DESIGN SPECIALIZATION

This specialization is intended for the student interested in professional preparation in apparel design or allied design positions in either industrial or commercial fashion businesses. The courses available to the student cover textile information, fashion design, and skills required for developing original designs into patterns and completed garments. Courses in clothing and textiles are complemented by ones in art, business, and other areas in order to provide a suitable background for various career opportunities.

General Studies Requirements		45
GSA 106	3	
GSB 202, 211	6	
GSC 205	3	
Requirements for Major in Clothing and Textiles with Apparel Design Specialization		65
Clothing and Textiles 127-3, 150, 304, 310, 314A, 314B, 328, 351, 352, 414, 416, 428, 460 or 462	40	
Art 100-8, 200, and art history	13	
Professional selections	12	
Choose from the following: accounting, art, chemistry, clothing and textiles, finance, interior design, journalism, marketing, psychology, or other approved courses.		
Electives		10
Total		120

CLOTHING AND TEXTILES MAJOR — RETAILING SPECIALIZATION

This specialization prepares the student for a profession in retail stores, either as buyers or department managers. Other related retailing positions are also available to students who complete the retailing specialization. The courses available to the student cover textile information, fashion merchandising, marketing, and other business-related courses.

General Studies Requirements	45
GSA 106	3
GSB 202, 211	6
GSC 205	3
Requirements for Major in Clothing and Textiles with Retailing Specialization	64
Clothing and Textiles, 150, 304, 341-2, 343, 349, 351, 352, 405, 442 plus 3 more hours	29
Accounting 210 or 221	3
Administrative Sciences 301 or 304 or Psychology 320 or 323	3
Electronic Data Processing 217	3
Interior Design 300	2
Marketing 304, 363, 401, plus 3 more hours	12
Professional selections	12
Choose from the following: chemistry, clothing and textiles, finance, interior design, journalism, marketing, psychology, or other approved courses.	
Electives	11
Total	120

CLOTHING AND TEXTILES MAJOR — DOUBLE SPECIALIZATION

This double specialization prepares the student for professional positions calling for either apparel design or retailing backgrounds, and the student will also be prepared to assume professional responsibilities calling for a blend of these, for example, a business which both designs apparel and sells it to the ultimate user.

General Studies Requirements	45
GSA 106	3
GSB 202, 211	6
GSC 205	3
Requirements for Major in Clothing and Textiles with Double Specialization	90
Clothing and Textiles 127-3, 150, 304, 310, 314A, 314B, 328, 341-2, 343, 349, 351, 352, 405, 414, 416, 428, 442, 460 or 462	54
Accounting 210 or 221	3
Administrative Sciences 301 or 304 or Psychology 320 or 323	3
Art 100-8, 200, any art history	13
Electronic Data Processing 217	3
Interior Design 300	2
Marketing 304, 363, 401, plus 3 more hours	12
Total	135

Minor

A minor in clothing and textiles is intended to provide background that will assist students in pursuing their career goals or other interests. A minor in clothing and textiles must have approval of the program coordinator. At least 16 hours of clothing and textiles courses are required as follows:

104 or 304	2-4
150 or 351 or 352	2-3
Other clothing and textiles courses	9-12

Courses

Proficiency examinations are available for Clothing and Textiles 104, 127, and 150. Students will be expected to purchase their own materials in some of the courses offered in clothing and textiles.

104-2 Basic Textiles. Emphasis on recognition of fabrics and weaves, suitability, care, and maintenance, especially household textiles. Credit cannot be earned for 104 after receiving credit for 304A.

127-1 to 5 Clothing Construction. Basic clothing construction laboratory utilizing personalized self-instruction methods. Use of machine; pattern alteration; fabric preparation; garment construction. Maximum of three hours per semester; initial registration cannot be for one hour. Elective Pass/Fail.

150-2 Survey of Clothing. Multidisciplinary overview of study of clothing. Course will include aesthetic, cultural, economic, physchological, and social aspects. Elective Pass/Fail.

304-4 Textiles. Presentation of aspects of textiles having an influence on properties and performance of textile end-products such as apparel and home furnishings. Characteristics of fibers, yarns and fabrics will be discussed, and other factors such as manufacturing methods of and legal constraints on the textile industry will be mentioned. Lecture and laboratory. Prerequisite: GSA 106.

310-3 Fashion Design-Styling. Original designs for male and female apparel and accessories using various media. Designs based on various sources of inspiration. Prerequisite: Art 200.

314A-3 Flat Pattern Making and Drafting. Fitting basic tissue or muslin and making sloper; making styles through flat pattern manipulation and drafting; testing and refining patterns to provide perfect fit. Prerequisite: 127.

314B-3 Draping. Application of design principles to dress; making garment form; refining patterns draped in muslin. Garments constructed of fashion fabric. Prerequisite: 314A.

328-3 Tailoring. Basic principles of tailoring applied to coat or suit. Prerequisite: 127 or equivalent.

341-3 (1,1,1) Fashion Retailing Seminar. Comparison of practices drawn from students' work experiences and information from readings or resource persons. Individual and group projects. (a) Inventory shrinkage, (b) Buying and buying procedures, (c) Personnel. Prerequisite: 100 hours approved retailing experience.

343-3 Apparel Accessories. Product knowledge, levels of quality, selling points, and care of plastics, leather goods, furs, jewelry, cosmetics. Elective Pass/Fail.

349-3 Fashion Merchandising. Functions and responsibilities of the fashion merchandiser, considering various retail establishments. Professional course for retailing majors. Prerequisite: 341 and Marketing 304.

351-3 Fashion Motivation. Psychological motivation for wearing clothing; societal functions of clothing, cultural differences in dress. Prerequisite: 150.

352-3 Family Clothing. Clothing needs of individual family members within the context of developmental stage, life style and societal setting; functional and fashion-motivated needs considered; clothing budgeting. Prerequisite: 150.

391-1 to 12 (1 to 6 per semester) Field Experience. Supervised learning experience in approved business or industry. Intended for majors in clothing and textiles only. Prerequisite: consent of chairperson.

405-3 Textile Product Testing. Exposure to and experience with methods used by retailers and manufacturers of textile items to measure performance and maintain quality. Standards, sampling, and replication requirements and interpretation of results. Prerequisite: 304 or equivalent.

414-4 Experimental Custom Apparel Designing. Development of apparel to meet esthetic, structural, and functional needs; problem-solving for exceptional proportions, rehabilitation, activity, performing arts, new technology, materials, environment. Some patterns originated in 414 may be tailored following semester in 428. Prerequisite: 314A and B or equivalent.

416-3 Mass-Market Apparel Designing. Design of a line to specifications; drafting; toiles; mass-production costs; work flow; use of industrial equipment. Field trips. Prerequisite: 314 or equivalent.

428-3 Custom Tailoring. Individualizing, fitting, and contouring of male or female garment for customer from commercial pattern or from pattern originated in 414 preceding semester. Organization of work and time. Prerequisite: 328 or equivalent.

442-3 Clothing Economics. Factors of production, distribution, and consumption influencing clothing industry; management of these factors in clothing related businesses; place of clothing industry in national and international markets. Field trip. Prerequisite: GSB 211 or Economics 214.

460-3 Historic Clothing: Western Cultures. Development of clothing in Western Civilization to the present time. Consideration of social, economic and esthetic factors, and

technical innovations influencing clothing. Offered alternate years. Prerequisite: junior standing.
462-3 Historic Clothing: Non-Western Cultures. Traditional dress in non-western cultures. Esthetics, symbolism, and uses of costume in the culture; effect of clothing on economy. Cultures studied may vary with each offering. Offered alternate years. Prerequisite: junior standing.
555-3 Foundations of Fashion.
573-2 College Teaching of Clothing and Textiles.

Coaching (Minor)

(SEE PHYSICAL EDUCATION)

Commercial Graphics — Design (Program, Major, Courses)

The advertising business is a growing field, presenting ever increasing opportunities for men and women who have creative and artistic ability. Trained people are needed to develop story illustrations, advertising layouts, billboard design, point-of-purchase displays, package designs, direct mail pieces, annual report designs, television commercials, title cards, finished lettering, fashion illustrations, airbrush and photo-retouching, and many others.

Students in this program develop multiple art skills so they may qualify for initial positions in many different areas of advertising art and design. Each individual has a base upon which to build a career according to personal special interests and talents.

Each graduating design student is required to pass, with 90% accuracy, a vocabulary proficiency test and to have compiled a professionally acceptable portfolio of work.

The student should expect to spend approximately $800 to $1,000 for supplies, equipment, and materials over a two year period.

An advisory committee whose members are active in the advertising and graphic design professions serves the program. Current members are: Richard Frybarger, director of visuals, John Deere Co., Moline; Richard Linton, Rechtin Associates, Paducah, Kentucky; Craig Leinicke, Craig Leinicke Design, Ballwin, Mo.; John Crowe, president, John Crowe Advertising, Springfield; Ray Welch, Ray Welch Advertising, Chicago; and J.R. Zinke, art supervisor, Bell Laboratories, Naperville.

This associate degree program can be completed in two academic years at Southern Illinois University at Carbondale or in combination with community college or other acceptable extra-institutional educational experience.

Admission each fall to the program is limited by available space. Students are admitted on a first-come, first-served basis.

Associate in Art Degree, School of Technical Careers

Requirements for Major in Commercial Graphics-Design

GSB 200-level	3
GSD 101, 153	6
School of Technical Careers 102, 199-2	4
Commercial Graphics 110, 120, 122, 124, 130, 132, 133, 134, 210, 215, 222, 224, 230	61
Total	74

Courses

103-2 to 8 Lithographic Stripping and Platemaking Laboratory. The student will apply imposition principles for offset in stripping line and halftone negatives, positives, combinations, surprints, double burns, tints and color blocks, step and repeat, burn plates, and pro-

duce printing on small presses. Prerequisite: concurrent enrollment in 127 or consent of instructor.

105-2 to 8 Typesetting and Make-up Lab. Student will learn to operate photoelectronic typesetting equipment designed to produce text as well as display type. Make-up will include work on newspaper advertisements and pages, as well as other printed material. The lab work will be performed in conjunction with the publication of a daily newspaper and other printing projects.

110-3 Art Appreciation — From the Cave to the Futuristic. The student will be able to recognize and indentify at least thirty paintings and works of art and their creators from 1500 B.C. to the contemporary designer and illustrators through the observations of color, composition, and technique. A field trip will be taken to an art museum. Lecture three hours.

120-4 Artistic Anatomy and Color Perception I. Students will demonstrate an ability to understand and use pigmental and light ray color theory and practical application. Students will also demonstrate a knowledge of the bones and muscles of the human anatomy by way of examination and further demonstrate their comprehension and talent by way of artistically and accurately drawing the figure from life. Student will also demonstrate an ability to design, organize, and structure through compositional arrangement. Lecture two hours. Laboratory three hours. Prerequisite: concurrent enrollment in 122 and 124.

122-4 Technical Drawing for Graphics. Students will demonstrate an ability to understand and utilize the proper point of perspective in illustration and to use the T-square, triangle, and drawing instruments in precisely executing geometric forms, mechanical, and industrial illustration. In addition, students will demonstrate an ability to render objects on scratchboard: the utilization of zipatone patterns and the proper use of the ruling pen to accurately execute ruled business forms. Lecture two hours. Laboratory three hours. Prerequisite: concurrent enrollment in 120 and 124.

124-4 Graphic Layout and Typography I. Student will demonstrate an ability to use the basic principles of layout, how to do thumbnails, roughs, and clear accurate comprehensives. They will also demonstrate an understanding of basic lettering styles and techniques with chisel point pencil. They will demonstrate an ability to understand the history and practical uses of typography in advertising. Lecture two hours. Laboratory three hours. Prerequisite: concurrent enrollment in 120 and 122.

126-2 Fundamentals of Drawing and Composition. For non-majors. The student will demonstrate awareness of perspective, light and shade, color theory and application, and composition through basic drawing techniques. Lecture one hour. Laboratory two hours. Elective Pass/Fail.

127-2 Lithographic Stripping and Platemaking Theory. The student will pre-plan the darkroom procedures necessary to produce line and halftone negatives, positives, combinations, double burns, tints, color blocks, step and repeat, and apply nomenclature procedures to maintain a supply of materials for varied shelf life. Prerequisite: concurrent enrollment in 103.

128-2 Fundamentals of Graphic Processes. The student will be made aware of the various principles and styles of layouts, letter forms and typography and prepare mechanicals to demonstrate a knowledge of the various printing methods. The student must supply all materials used. Lecture one hour. Laboratory two hours. For non-majors. Elective Pass/Fail.

129-2 Typesetting and Make-up Theory. The student will become familiar with the various typesetting methods including handset, linotype, monotype, as well as the newer photoelectronic typesetting. The study will also include the various techniques of paste-up and preparation of camera-ready copy.

130-4 Artistic Anatomy and Color Perception II. The student will continue to demonstrate knowledge and artistic ability of the human anatomy in the development of advertising, illustration, fashion illustration, and by way of modification the development of the cartoon figure. Lecture two hours. Laboratory three hours. Prerequisite: 120, 122, and concurrent enrollment in 132 and 134.

132-4 Airbrush and Photo Retouching. The student will demonstrate development of skills in the operation and techniques of airbrush rendering used for mechanical and illustrative purposes, and in addition, will retouch black and white photographs suitable for reproduction. Lecture two hours. Laboratory three hours. Prerequisite: 120 and 122 and concurrent enrollment in 130 and 134.

133-1 Copyfitting. The student will demonstrate an ability through discussion and examination to properly solve copy fitting problems, specify how many lines a given manuscript or ad will set, how deep, how many pages in any given format, and to calculate the number of characters per pica and per line. Lecture one hour. Prerequisite: concurrent enrollment in 134.

134-4 Graphic Layout and Typography II. The students will demonstrate their ability through discussion and examination to identify at least 14 different type faces on sight. In addition, they will demonstrate an ability to prepare clean, accurate, professional, quality

paste-up, keylines with overlays, and separations. They will demonstrate an ability to work with offset lithography, letter press, gravure, and silk screen printing processes. Lecture two hours. Laboratory three hours. Prerequisite: 122 and 124, and concurrent enrollment in 130, 132, and 133.

200-1 to 2 (1,1) Artfair Exhibition. Students will receive practical experience in the coordination and development of an art exhibition. They will participate in the development of announcements, mailers, cataloging, scheduling news releases, receiving of entries, security, and returning procedures. They will develop a systems flow chart for the effective and smooth operation of an exhibition including hands-on operation of exhibit construction and location. Laboratory three hours. Elective Pass/Fail.

201-2 to 8 Lithographic Photography Laboratory. The student will produce line and halftone negatives, tint screens, reverses contact prints, positives, posterization, process color, emphasis techniques and produce selected work on small presses. Prerequisite: concurrent enrollment in 225 or consent of instructor.

202-2 to 8 Offset Presswork Laboratory. The student will produce selected work on the Heidelberg, KORA, including multiple imposition, four-color process, step and repeat, duotones, posterization and bindery. Prerequisite: concurrent enrollment in 226 or consent of instructor.

210-8 Advertising Graphics. Students will demonstrate an ability to apply the techniques learned during the first year in the preparation of professional assignments in the areas of marker comps, logo design, cartoons to be used for various types and styles of advertising illustration, and storyboards for television commercials. Further, they will demonstrate an ability to design professional quality letterheads, envelopes, business cards, and matchbook covers. In addition, students will have their work selected for production on client-oriented publications. They will be assigned to a discussion group in order to receive the benefit of personal critique and individual progress and development assistance for projects and assignments. Lecture four hours. Laboratory six hours. Prerequisite: 130, 132, and 134.

215-8 Dimensional Design. Students will demonstrate an ability to conceptually order verbal information to form a precise concept, and to express the concept visually in the execution of point-of-purchase displays, packaging, exhibits, and signs. They will also show an ability to do package design. Students will be assigned to a discussion group in order to receive the benefit of personal critique and individual progress and development assistance for projects and assignments. Lecture four hours. Laboratory six hours. Prerequisite: 210 and 224 and concurrent enrollment in 222.

222-8 Graphic Design and Advertising Illustration. Students will demonstrate an ability to prepare professional quality assignments in the areas of cover and billboard design and illustrations, and the complete development of storyboards for television commercials. They will have the opportunity to have work selected for production on client-oriented publications. Students will be assigned to a discussion group in order to receive the benefit of personal critique and individual progress and development assistance for projects and assignments. Lecture four hours. Laboratory six hours. Prerequisite: 210 and 224 and concurrent enrollment in 215.

224-8 Publication Graphics. Students will demonstrate an ability to create new and unusual techniques in advertising design, sales promotion booklets, tent cards, and folder design with complete production art. Contemporary techniques in design and production, the use of color keys and stock will be emphasized. They will also have the opportunity to have work selected for production on various client-oriented publications. Students will be assigned to a discussion group in order to receive the benefit of personal critique and individual progress and development assistance for projects and assignments. Lecture four hours. Laboratory six hours. Prerequisite: 130, 132, 134 and concurrent enrollment in 210.

225-2 Lithographic Photography Theory. The student will inventory, order, maintain supplies and materials essential to darkroom operations to produce the lab work. They will evaluate the emphasis techniques as they are produced on colored and textured paper stocks. Prerequisite: concurrent enrollment in 201.

226-2 Offset Presswork Theory. Students will pre-plan work for the KORA including imposition of various sheet sizes or half sizes, with advantages or disadvantages with relationship to bindery procedures of folding, cutting, scoring, and perforating. Prerequisite: concurrent enrollment in 202.

230-1 Job Orientation Seminar. Students will demonstrate a knowledge through discussion and examination of the operations of large and small agencies and studios including the various responsibilities of the people employed in them by class discussion and examination. Prospecting for employment, working conditions, prospects for advancement, how much an artist should charge for a piece of art, and the legal responsibilities of the artist-designer to the client-agency will be discussed. Students will conclude this course with the presentation of a portfolio demonstrating their ability to do professional quality work (at least 10 plates) and will have acquired the experience of being interviewed for an artist position. Lecture one hour.

240-3 to 12 Special Study. A student with a special interest in a particular advertising art or graphic design area will be selected projects and research to develop additional professional skill. Requires approval of the program supervisor. Lecture three hours. Laboratory 24 hours maximum.

Commercial Graphics — Production (Program)

(ALSO SEE COMMERCIAL GRAPHICS — DESIGN)

Opportunities abound in the printing and publishing field for trained production specialists and persons with both mechanical skills and management ability.

The School of Technical Careers currently is developing innovative approaches to education in this field which allow the student to build a program of relevant courses drawn from diverse areas of offerings to meet the challenge of emerging technologies which are revolutionizing the publishing industry. The student who wishes to enter this program will work with an adviser in planning a course of study which meets individual needs and University requirements.

This associate degree program can be completed in two academic years at Southern Illinois University at Carbondale or in combination with community college or other acceptable extra-institutional educational experience.

Communications and Fine Arts (College, Courses)

Courses

397-1 to 6 Special Interdisciplinary Study. Designed to offer and test new and experimental courses and series of courses within the College of Communications and Fine Arts. Prerequisite: consent of instructor.

497-1 to 6 Special Interdisciplinary Study. Designed to offer and test new and experimental courses and series of courses within the College of Communications and Fine Arts. Prerequisite: consent of instructor.

Community Development (Major [Graduate only], Minor Courses)

The community development program is a part of the Division of Social and Community Services.

In recognition of major national legislation in community development and the growing need for informed leaders and trained practitioners at the community level in many fields, this minor has been developed.

Requirements: 15 semester hours, including 401 and at least 6 additional hours selected from community development courses and 6 more hours from community development courses or from courses closely related to the community development field offered in other departments. A list of approved courses is available from the community development office. If students receive credit in their major for any of these courses, it may not also be counted toward their community development minor.

Courses

200-3 The Nature of Community. Human communities have existed since pre-history, but the nature of what a community is, should, or could be remains a subject of wide debate. The purpose of this course is to clarify some of the issues of this debate by examining some of the ways that communities have changed since prehistoric times as well as the different philosophies and theories of community, both past and present, and also by identifying those aspects and elements of community life that appear common to all human communities. Elective Pass/Fail.

201-3 Communes and Communities: Experiments Past and Present. Throughout recorded history various individuals have envisioned, and various groups have deliberately sought to establish, communities that differed greatly from the conventional communities of the

time. Some, like the medieval monastic orders or the "Bruderhoffs" of today, have been remarkably durable; but many have failed. In this course, the history and philosophy of experimental and intentional communities from monastaries to communes will be reviewed with the object of better understanding the social conditions that give birth to such communities and those conditions that appear to either enable or inhibit their survival. Elective Pass/Fail.

202-3 Communities of the Future. The focus of this course will be on problems of and solutions to the creation and maintenance of human settlements and the interdependence of social, cultural, and economic elements. Problems of crime, disease, health, moral issues, government control, population, migration, and others will be explored against a background of innovative, technical and utopian social ideas about communities of the future. Elective Pass/Fail.

302-3 Community Self-Study. An introduction to problem analysis and needs assessment. The self-study approach, pioneered by the Southern Illinois University at Carbondale community development program, enables citizens in small towns and social and economic groups in urban areas to identify needed changes harmonious with their values. Examines the community self-study method and applications to current problems.

401-3 Introduction to Community Development. This course surveys the field of community development, an applied social science that encourages self-reliance by generating change and growth strategies for groups and communities. The course focuses on the history and philosophy of community development, citizen rights issues, change techniques, value dilemmas confronting change agents, and examination of some current community development programs.

402-3 Comparative Community Development. Analyses of the history, goals, methods, and techniques of socioeconomic development in the Third World countries. Cultural, economic, social structural, political, and administrative factors in development and in the process of community organization are discussed. Case studies from Africa, Asia, and Latin America.

403-3 Community Organization. An examination of basic approaches to community organization used by change agents and human service workers. Special emphasis is placed on sensitizing students to consumer participation issues.

404-3 Role Theory and Analysis in Community Development. The focus of this course is on role theory and methods of analysis. The student will gain considerable exposure to the techniques of role analysis as an evaluation tool in community development training and program development. Elective Pass/Fail.

405-3 Social Planning. Introduction to the methods, practices, functions, and ethics of social planning in the United States, including a critical perspective. Criminal justice, health, manpower, welfare, and other sectors of social planning will be discussed to illustrate the principles of social planning.

491-1 to 6 Independent Study in Community Development. Supervised individual study and projects in keeping with the needs of each student. Prerequisite: consent of instructor.

497-1 to 12 (1 to 3 per topic) Seminar in Community Development. The identification and analysis of special problems in community development. **(a)** Project funding, evaluating, and reporting; **(b)** Central and peripheral systems in community development; **(c)** Community development cooperatives and credit unions; **(d)** Research problems and methods; **(e)** Special problems. Credit limited to not more than three per topic and not more than 12 total.

500-3 Research Seminar in Community Development.
501-4 Small Group Process in Community Development.
502-3 Community and Change.
503-3 Problems of and Approaches to Community Development.
589-2 Professional Seminar in Community Development.
593-1 to 6 Individual Research in Community Development.
595-1 to 8 Internship.
599-1 to 6 Thesis Research.
601-1 to 12 per semester Continuing Research.

Comparative Literature (Minor)

A comparative literature minor is available within the College of Liberal Arts. The program is directed by the comparative literature adviser in either the Department of English or the Department of Foreign Languages and Literatures. The minor consists of 18 hours of course work at or above the 300-level in literature other than those in which the student is majoring.

Comprehensive Planning and Design (Division, Courses)

The Division of Comprehensive Planning and Design resulted from consolidation of three units in the College of Human Resources: Clothing and Textiles, Design, and Interior Design. Most courses in the division and all undergraduate specializations and majors are offered by these units. Undergraduate courses common to more than one unit have been combined and are offered as division courses. These are listed below or under Environmental Design. Information on the graduate program and courses may be found in the graduate bulletin under Environmental Design.

Courses

391-1 to 6 Independent Study. Independent effort developed by student with supervision by faculty sponsor. Prerequisite: consent of instructor.

Computer Science (Department, Major, Courses)

The Department of Computer Science offers courses covering the major areas of computer science. These courses constitute the basis for an undergraduate major which prepares students for a variety of professional and technical careers in business, industry, and government or for graduate work leading to advanced degrees. In addition, the department offers an undergraduate minor and service courses for students from other fields who will use computer science as a tool in their own areas. Students interested in computer science will be advised with respect to computer science courses by the department so they may profitably pursue their academic and professional interests.

Requirements for a major in computer science are specified in two alternative forms. The program under option A is the more flexible, broadly based, and provides preparation for a wide range of careers as well as for graduate training in computer science. Option B is more specifically oriented toward preparing a student for a career in business and management information processing.

Bachelor of Arts Degree, College of Liberal Arts

COMPUTER SCIENCE MAJOR – OPTION A

General Studies Requirements	45
Supplementary College Requirements (See Page 84)	(4) + 4
Requirements for Major in Computer Science	58
Computer Science 202, 204, 302, 304, 306, 342, 411, each with a grade of *C* or better	23
Computer Science electives[1]	18
At least 18 additional hours including 361 or 464a. The electives should include at least 12 hours of 400-level computer science courses. The remaining courses may be 300 or 400-level computer science courses or approved courses from other departments.	
Mathematics 150, 250, 221	11
Mathematics 280 or 282 or 283	3
English 290 or equivalent	3
Electives	13
Total	120

COMPUTER SCIENCE MAJOR – OPTION B

General Studies Requirements	45
Supplementary College Requirements (See Page 84)	(4) + 4

Requirements for Major in Computer Science	60
Computer Science 202, 204, 302, 304, 306, 312, 411, each with a grade of *C* or better	23
Computer Science 430, 435	6
Computer Science electives[1]	6
At least 6 additional hours of computer science courses including at least 3 hours at the 400-level.	
Mathematics 139 and 140 or equivalent	7
Mathematics 280 or 282 or 283	3
English 290 or equivalent	3
Accounting 221, 222	6
Administrative Sciences 352	3
Administrative Sciences 318 or 456 or an approved course	3
Electives	11
Total	120

[1]A Computer Science major must be able to demonstrate programming proficiency in two high level languages. Proficiency can be demonstrated in an appropriate course or by an examination.

Minor

A minor consists of Computer Science 202, 204, 302, 304, and 306.

Courses

102-3 Computers in Society. An introduction to computers, their uses, present and future roles of computer technology in society, and related social issues. Includes elementary programming using on-line terminals.

202-3 Introduction to Computer Programming. An introduction to computers and programming including a discussion of algorithms, flowcharts, data representation, structure and debugging of programs, computers and languages. Primary emphasis will be given to the solution of problems using PL/1.

204-3 Advanced Programming Techniques. An advanced treatment of PL/1 which includes emphasis on programming style and elementary data structures. Prerequisite: 202.

205-4 Advanced Programming Techniques. A version of 204 designed for students who have not had a prior course in PL/1. Prerequisite: consent of department.

212-3 Introduction to Business Computing. An introduction to concepts and features of computing systems with reference to business information processing. Includes a basic treatment of programming using PL/1. This course will serve as an equivalent of 202 for prerequisite purposes.

222-3 Introduction to FORTRAN. A basic treatment of FORTRAN with applications to numeric and nonnumeric processing.

302-4 Assembly Language Programming. Basic computer organization. An extensive treatment of a specific assembly language, including macros. Prerequisite: 204 or concurrent enrollment.

304-3 Information Structures. Study of structures used to organize information in computer memory, with a discussion of manipulation algorithms and applications. Topics include vectors and arrays, linked lists, trees, garbage collection, dynamic storage allocation, sorting and searching, and hashing. Prerequisite: 302.

306-3 Fundamentals of Computing Systems. An introduction to the organization of a computing system in terms of hardware, firmware, software. Computer architecture and hardware subsystems. Design of an assembler and other system software. Prerequisite: 302.

312-3 COBOL and Business Data Processing. COBOL and its use in business data processing. Prerequisite: 202.

314f-2 Programming Techniques in FORTRAN. A thorough treatment of FORTRAN with extensive programming practice. Prerequisite: 204.

314l-2 Programming Techniques in List and String Processing Applications. Thorough analysis of the techniques used to support string and list processing. Includes extensive programming practice. Prerequisite: 204.

318-2 Topics in Assembly Language Programming. Selected advanced topics in assembly language programming. Prerequisite: 304 and 306.

342-3 Introduction to Discrete Structures. (Same as Mathematics 301.) Sets, relations, and functions. Elements of graph theory with emphasis on algorithms and applications to computing problems. Boolean algebras with applications to computer logic and logical design. Prerequisite: 202 and Mathematics 111 or consent of either department.

361-3 Numerical Calculus. (Same as Math 361.) Algorithms for the solution of numerical problems encountered in scientific research work with special emphasis on the use of digital computers. Includes an elementary discussion of error, polynomial interpolation, quadrature, solution of nonlinear equations and linear systems, solution of differential equations. Prerequisite: 202 and Mathematics 150.

370-2 Basic Simulation. A study of the basic techniques used in simulating discrete systems on a digital computer. Emphasizes the writing of computer programs to model probabilistic systems with special emphasis on a general purpose simulation language. Credit will not be given for both 370 and 470. Prerequisite: 202.

401-3 Computer Organization. Computer main frame architecture; control unit, arithmetic/logic unit, memory, other features. Input/output devices, mass storage devices, channels, and communications equipment. Computer system configurations design and comparison. Prerequisite: 304, 306 and 342.

411-4 Programming Languages. Study of the significant features of existing programming languages with particular emphasis on the underlying concepts abstracted from these languages. Includes formal specification of syntax and semantics, representation and evaluation of simple statements, grouping of statements, scopes and storage allocation, procedures. Prerequisite: 304.

414-3 Systems Programming and Operating Systems. The use and implementation of assemblers, macro assemblers, linkers, and other systems programs. Exercises in designing and writing various systems programs. An introduction into process, memory, device, and file management in batch, multiprocessing, and timeshared operating systems. Prerequisite: 304 and 306.

420-1 to 3 Topics in Computer Science for Teachers. A consideration of topics in computer science useful in curriculum enrichment in elementary and secondary education. May be repeated as topics vary. Does not count toward a computer science major. Prerequisite: consent of department.

430-3 File Organization. Organization of records and blocks. Design of files, file system, and access methods. File maintenance, external sorting, and searching. Techniques for creating and using hashed files. Introduction to the concepts of data base systems. Prerequisite: 304 and 306.

435-3 Information Systems Analysis. An exercise in the analysis, design, implementation, testing,, and maintenance of a large modular application system. Team production of a system is the focal point for the course. Topics include the system life cycle, modular design, human interfaces, external system specification, program design languages, and improved programming techniques. Prerequisite: 304 and 306.

436-3 Artificial Intelligence I. Heuristic Programming. Heuristic methods: state space, problem reduction, game playing, general problem solver, learning machines. Prerequisite: 304.

438-3 Introduction to Telecommunications. Time dependent computational processes. Hardware and software considerations. Dialogue design. System design and implementation. Prerequisite: 304 and 306.

445-3 Boolean Algebra and Logical Design. (Same as Mathematics 445.) Boolean algebra with applications to computer logic and circuit design. Simplification algorithms. Sequential circuits and sequential machines. Introduction to error-correcting codes. Prerequisite: 342 or Mathematics 319.

449-3 Combinatorics and Graph Theory. (Same as Mathematics 449.) An introduction to graph theory and combinatorial mathematics with computing applications. Topics include permutations and combinations, generating functions, recurrence relations, the principle of inclusion and exclusion, Polya's theory of counting, graph theory, transport networks, matching theory, block designs. Prerequisite: 342.

451-3 Introduction to the Theory of Computing. (Same as Mathematics 451.) The fundamental concepts of the theory of computation including finite state acceptors, formal grammars, turing machines, and recursive functions. The relationship between grammars and machines with emphasis on regular expressions and context-free languages. Prerequisite: 445.

455-3 Design and Analysis of Computer Algorithms. Introduction to analysis and complexity of algorithms. Searching/sorting algorithms, polynomial matrix algorithms, graph theoretic algorithms. Introduction to complexity theory. Prerequisite: 304, 342.

464-6 (3,3) Numerical Analysis. (Same as Mathematics 475.) An introduction to the theory and practice of computation with special emphasis on methods useful with digital computers. Topics include the solution of nonlinear equations, interpolation and approximation, numerical differentiation and integration, solution of differential equations, matrix calculations and the solution of systems of linear equations. Must be taken in a,b sequence. Prerequisite: 202, Mathematics 250, and Mathematics 221.

470-3 Computer Simulation Techniques. Applications and rationale. Design and analysis of discrete simulation models. Generation of random sequences and stochastic variates. Simulation languages. Prerequisite: 202 and either Mathematics 280 or 480 or 483 or consent of instructor.

471-3 Introduction to Optimization Techniques. (Same as Mathematics 471.) Nature of optimization problems. General and special purpose methods of optimization, such as linear programming,, classical optimization, separable programming, integer programming, and dynamic programming. Prerequisite: 202, Mathematics 221, and Mathematics 250.
472-3 Linear Programming. (Same as Mathematics 472.) Nature and purpose of the model. Development of the simplex method. Application of the model to various problems. Introduction to duality theory. Transportation and network flow problems. Postoptimality analysis. Prerequisite: 202 and either Mathematics 139 or 221.
485-3 Computer Graphics. Study of the devices and techniques for the use of computers in generating graphical displays. Includes display devices, display processing, transformation systems, interactive graphics, 3-dimensional graphics, graphics system design and configuration, low and high level graphics languages, and applications. Prerequisite: 304 and 306 and Mathematics 111 or equivalent.
490-1 to 6 (1 to 3 per semester) Readings. Supervised readings in selected subjects. Prerequisite: consent of instructor and department.
491-1 to 4 Special Topics. Selected advanced topics from the various fields of computer science. Prerequisite: consent of instructor.
492-1 to 6 (1 to 3 per semester) Special Problems. Individual projects involving independent work. Prerequisite: consent of department.
493-1 to 4 Seminar. Supervised study. Preparation and presentation of reports. Prerequisite: consent of instructor.
501-3 Advanced Computer Organization.
511-3 Formal Specification of Programming Languages.
514-3 Advanced Operating Systems.
516-3 Compiler Construction.
531-3 Text Processing and Data Base Systems.
536-3 Artificial Intelligence II.
553-3 Formal Languages and Automata.
555-3 Theory of Computability.
564-3 to 9 (3,3,3) Advanced Numerical Analysis.
590-1 to 9 Readings.
591-1 to 9 (1 to 3 per topic) Special Topics.
592-1 to 6 (1 to 3 per semester) Special Problems.
593-1 to 4 Seminar.
599-1 to 5 Thesis.
601-1 to 12 per semester Continuing Research.

Construction Technology — Building (Program, Major)

(ALSO SEE CONSTRUCTION TECHNOLOGY — CIVIL)

The construction technology — building curriculum is designed to meet the needs of the construction industry. The technicians must be able to talk the language of the industry and interpret instructions, and must also be capable of working in the area between the architect and the craftsmen who are expected to carry out the mandates of the design. The program provides sufficient theory and laboratory work so that the graduate can perform in areas of design, drafting, construction methods, estimating, and surveying.

The curriculum is designed to accept both new freshmen and transfer students. Students entering with industrial experience or courses taken in the military may be given credit by proficiency or transcript evaluation.

The student should expect to spend about $60.00 for instruments and supplies.

The program is served by an advisory committee whose members have extensive experience in the field. Current members are: Mike Grant, Unibuilt Structures, Charleston; Fred H. Persson, Steffes Construction Co., Carterville; Paul Phillips, Phillips Lathing, Inc., Carbondale; D. Leo Robinson, J & L Robinson Development and Construction Co., Carbondale; and Arthur Vincent, Egyptian District Council Carpenter's Union, Murphysboro.

Graduates of this program may find employment as construction engineering aids, assistants to a contractor supervisor, building materials sales representatives, inspectors, and estimators.

This associate degree program can be completed in two academic years at Southern Illinois University at Carbondale or in combination with community college or other acceptable extra-institutional educational experiences.

Associate in Applied Sciences Degree, School of Technical Careers

Requirements for Major in Construction Technology — Building

GSD 101	3
School of Technical Careers 102, 105a,b 107a,b	10
Accounting 110	3
Construction Technology 102a, 103a,b, 104, 110, 111, 125a,b 208, 210, 211	53
Electives (in Humanities or Social Sciences)	3
Total	72

Construction Technology — Civil (Program, Major, Courses)

The construction technology — civil curriculum is designed to produce a technician who can, under supervision, perform many of the specialized tasks required to coordinate and guide a construction project from the planning stage to a satisfactory completion. Technical training is provided in surveying, materials of construction, construction methods, equipment, planning, estimating, design, and drafting.

Credit may be obtained for relevant courses or work experience by transcript evaluation or proficiency examination.

The student should expect to spend approximately $40.00 for instruments and supplies.

The following people serve on an advisory committee which assists the program: M.P. Berteaux, Department of Transportation, Springfield; Carroll Fry, city manager, Carbondale; Charles Luckett, Superior Structures Corp., Marion; Henry Mitchell, Shawnee Construction, Marion; B.J. Schwegman, Clark, Dietz, and Associates, consulting engineers, Carbondale; and Don Shelton, State Highway Department, Carbondale.

Career opportunities exist primarily with heavy construction oriented organizations: governmental units engaged in providing public works such as highways, airports, and conservation projects; contractors; consulting engineers; industrial organizations; material suppliers and testing laboratories.

This associate degree program can be completed in two academic years at Southern Illinois University at Carbondale or in combination with community college or other acceptable extra-institutional educational experiences.

Associate in Applied Science Degree, School of Technical Careers

Requirements for Major in Construction Technology — Civil

GSD 101	3
School of Technical Careers 102, 105a,b, 107a,b	10
Construction Technology 101a,b, 102a,b, 103a,b 125a,b, 201, 203, 207, 208, 213a,b	53
Elective (in Humanities or Social Science)	3
Total	69

Courses

101-14 (7, 7) Surveying. Students will be able to make observations, prepare field notes, and make field checks using equipment usually encountered in plane surveying. They will be able to reduce field notes and present the results in a form which is understandable to others using the desk calculator, planimeter, slide rule, and drawing instruments as required. They will know techniques employed in construction layout. (a) Horizontal

distance, leveling, the transit, traverses, elementary triangulaton, surveys for maps, stadia and photogrammetry, construction surveys. Lecture three hours, laboratory six hours. **(b)** Surveying computations, areas, volumes; error theory, earthwork, horizontal curves, vertical curves, slope staking, ties, construction tolerances, elements of land surveying, state plane coordinate systems. Must be taken in a,b sequence or by consent of instructor. Lecture three hours, laboratory six hours.

102-8 (4, 4) Drafting. Students will acquire the basic skills necessary for more advanced drafting work. They will then specialize in drafting techniques used in the preparation of working drawings for steel and concrete structures. **(a)** Lettering, line work, geometrical constructions, drawing layout, dimensioning, orthographic projection, sections, auxiliary views, surface intersections, surface development, isometric drawing, oblique drawing, elements of structural drafting. Lecture two hours, laboratory four hours. **(b)** Preparation of working drawings for steel and concrete structures from given design data. Lecture two hours, laboratory four hours.

103-8 (4, 4) Construction Materials. Students will obtain knowledge of production methods, physical properties, uses, installation methods, advantages and disadvantages, together with relative costs of materials frequently used in construction. Using given test procedures, they will be able to perform tests on concrete materials and soils which are required for on-site control. **(a)** Concrete materials including laboratory, wood, ferrous metals, bituminous materials, soil cement, nonferrous metals, stone, masonry, concrete proportioning, introduction to reinforced concrete. Lecture two hours, laboratory three hours. **(b)** Soils including laboratory, elementary soil mechanics, foundations, other building materials including plastic, glass, insulation, building boards, protective coatings. Lecture two hours, laboratory three hours.

104-4 Building Construction Surveying. Students will be able to give line and grade for elementary construction layout using the tape, transit, and level or equivalent equipment. They will also be able to make surveying observations required for the preparation of a site plan. Lecture two hours, laboratory three hours.

110-7 Basic Construction I. Students will acquire the skills and knowledge necesary to enable them to safely operate basic woodworking machines, identify the common commercial wood species, and apply basic methods of testing wood and other wood-based materials. Lecture two hours, laboratory nine hours.

111-7 Basic Construction II. Student will acquire the skills and knowledge necessary to enable them to demonstrate their abilities in light frame construction, electrical wiring methods, and small tool maintenance and repair. Lecture two hours, laboratory nine hours. Prerequisite: 110 or consent of instructor.

125-6 (3, 3) Statics and Strength of Materials. The student will learn fundamental concepts which are necessary in order to understand terms continually used in civil technology. **(a)** Force systems, strength of materials, friction, connections, thin wall, pressure vessels. Lecture three hours. **(b)** Beam design, torsion, shafts, couplings, keys, combined stresses, columns, statically indeterminate members. Lecture three hours.

201-3 Advanced Surveying. The student will develop the ability to organize a small field party, make field observations using techniques consistent with given survey requirements, and present results in a form useful to others. Comprehensive problems will be assigned which include traverses, triangulation, topography and field astronomy. Laboratory and homework in addition to regularly scheduled class time will be required. Lecture two hours, laboratory two hours. Prerequisite: 101 or consent of instructor.

203-3 Hydraulics and Drainage. Students will have sufficient technical background to perform inspection functions on projects where static and moving liquids are being controlled. Under supervision, they will be able to make small area surface run-off and drainage structure computations. Subjects studied are: static pressures, flow in open channels and pressure conduits, surface run-off, drainage structures. Lecture three hours.

207-3 Construction Planning, Methods, and Equipment. Students will have basic knowledge of construction management functions, primarily from the point of view of the contractor. They will be able to assist in the preparation of work schedules, requests for progress payments and the evaluation of alternate methods of construction. Systematic problem-solving procedures based on factual data are emphasized. Lecture three hours. Elective Pass/Fail.

208-3 Construction Cost Estimating. The student will be able to assist in the preparation of construction cost estimates. Actual working drawings and specifications are used extensively. Emphasis is on quantity take-off and the development of unit costs from given or derived data. Lecture three hours.

210-7 Advanced Construction I. Students will acquire the skills and knowledge to enable them to perform advanced operations in light frame, prefab, and modular construction. Lecture three hours, laboratory six hours. Prerequisite: 111 or consent of instructor.

211-7 Advanced Construction II. Students will acquire the skills and knowledge to enable them to demonstrate their competency in the preservation and finishing of building materials, plumbing and pipefitting as it relates to domestic and other buildings, concrete forming methods; and block and bricklaying techniques. Lecture three hours, laboratory six hours. Prerequisite: 210 or consent of instructor.

213-5 (2, 3) Structural Design. Sufficient design background is provided for supervision of field construction techniques to insure that the intentions of the drawings and specifications are fulfilled. **(a)** Pertinent provisions in the American Institute of Steel Construction-Manual of Steel Construction are emphasized. Lecture two hours. **(b)** Similar to **(a)**, but the American Concrete Institute-Building Code Requirements for Reinforced Concrete is used. Lecture three hours.

Consumer Studies (Minor)

(SEE FAMILY ECONOMICS AND MANAGEMENT)

Correctional Services (Program, Major)

(ALSO SEE LAW ENFORCEMENT)

A growing demand for trained correctional workers is being created by increasing emphasis on rehabilitation of criminal offenders. These people are needed both in institutions and in community-based corrections.

This correctional services program has the two-fold purpose of providing a broad-based social science type curriculum to both the person entering the field and to presently employed personnel who wish to upgrade skills for advancement opportunities.

Students will learn the nature and effects of crime on both the perpetrator and the victim, methods used to combat crime in modern society, and various approaches to rehabilitation of the offender. They will spend one term in supervised internship working in a correctional institution or with a correctional agency.

Persons already employed in the correctional field may enroll in the program on a part-time basis with the assurance that faculty members will help them to arrange classes compatibly with their work schedules.

Professionals in the field serve on an advisory committee which assists in the program. Current members are: Charles Brantley, chief probation officer, Jackson County, Murphysboro; Michael Lane, director of adult institutions and assistant director of the Department of Corrections, Springfield; Ken McGinnis, Warden, Graham Correctional Center, Hillsboro; and Joseph Coughlin, Center for the Study of Crime, Delinquency and Corrections, Southern Illinois University at Carbondale.

This associate degree program can be completed in two academic years at Southern Illinois University at Carbondale or in combination with community college or other acceptable extra-institutional educational experience.

Associate in Art Degree, School of Technical Careers

Requirements for Major in Correctional Services

GSB 202, 203, 212	11
GSD 101, 118, 153	8
Correctional Services/Law Enforcement 103, 104, 105, 106, 108, 115, 209, 210, 215, 218, 220	39
Electives	4
Total	62

Correctional Services/Law Enforcement (Courses)

Courses

103-3 Introduction to Criminal Justice. Enables the student to understand the workings of the criminal justice system and is the foundation course for the correctional services and law enforcement programs. Upon completion of this course, the student will have an

understanding of the processes from arrest through imprisonment enabling assimilation of progressive courses such as criminal law and criminal behavioral theories. Lecture three hours.

104-3 Treatment Methods in Criminal Justice. The general goal of this course is to introduce to the student several treatment methods utilized in the criminal justice system. The student will briefly examine several treatment modalities and will discuss transactional analysis in detail. Other course items will include participation in a treatment group and a trip to a maximum security prison. Participation is required in many group exercises that may be scheduled at times other than regularly scheduled class time. These group exercises should help the student gain a working knowledge of treatment methods and group processes. Lecture three hours.

105-3 Criminal Behavior. Will enable the student to understand the psychological and sociological forces that make up criminal behavior. Upon completion of this course the student will have the knowledge to complete studies of the behavioral field in other disciplines of the University such as criminology. Lecture three hours.

106-3 Treatment Practicum. Will enable the successful student to apply the techniques learned in 104 in actual therapeutic settings and groups in area social service agencies and correctional institutions. Upon completion of this course, the successful student will be prepared to assist in leadership of therapeutic or treatment modalities and will have the ability to use these skills in human service agencies. Lecture three hours. Prerequisite: 104.

108-3 Supervision in Criminal Justice. The criminal justice supervisor's role in discipline, intradepartmental relations, problem-handling, and personnel policies. Problems relating to supervisory relationships, wages, grievances, morale, and safety. Lecture three hours.

115-3 Interpersonal Relations in Criminal Justice. Enables the student to develop a better understanding of people, their motivations, and their behavior patterns. A specific emphasis of this course is on individual and organizational intrapersonal and interpersonal relations. Upon successful completion of this course, each student should have developed the skills necessary for positive interaction with individuals in the free society and within a setting of incarceration. Participation in group exercises at times other than regularly scheduled class time is required. Lecture three hours.

205-3 Criminal Investigation. Enables the student to examine the major theories and techniques of criminal investigation. Upon successful completion of the course, the student should have an understanding of the techniques of criminal investigation and how these techniques can be applied to various types of investigations. The student should learn the value of adequate preservation, collection, and handling of physical evidence. Lecture three hours.

209-3 Criminal Law I. Enables the student to understand the due process functions of the criminal law. Upon completion of this course the student will be able to use a law library and will have an understanding of the laws of arrest, search and seizure, and evidence including recent Supreme Court decisions affecting daily work assignments. This course is also a foundation for Criminal Law II where the substantive law is covered. Lecture three hours.

210-3 Criminal Law II. Will enable the student to apply the law of due process (constitutional law) to the study of substantive law including Illinois state penal code and the Illinois Corrections Code. Upon completion of this course the student will have a working knowledge of how both the penal and corrections codes of the state enables society to successfully prosecute violators of the law. The student will also be able to brief cases pertaining to criminal and correctional law. Lecture three hours. Prerequisite: 209.

215-9 Internship in Criminal Justice Practice. The pre-service student will be exposed to the operations of a criminal justice agency through an eight-week internship in that agency under supervision. Upon completion of the internship the student will have been exposed to all aspects of the agency and reinforce the student's attitudes toward that particular area of criminal justice. (Internship — 40 hours per week. Eight weeks.)

218-3 Introduction to Corrections. Will enable the student to develop an understanding of current problems (drugs, racial tension, subcultures) in correctional institutions; foundation of corrections in America; effect of recent court decisions and inmate population on correctional institutions; relationship of correctional services to the criminal justice system. Lecture three hours.

220-3 Probation, Parole, and Community Based Corrections. Will enable the student to understand the concept of alternatives to incarceration. The benefits and workings of probation and parole will be examined and the student will be exposed to the casework method utilized in these areas. The student will learn of alternatives to incarceration that are community based and of the need for community involvement and support for these efforts. Lecture three hours. Prerequisite: 103.

221-3 Police Administration. Principles of organization and modern management as applied to law enforcement agencies. The course will provide the student with an introduction to organizational theory, organizational behavior and administration. Special attention will be paid to the objectives of police operation and some of the factors lying ahead in the field of police administration. Lecture three hours. Prerequisite: 103 and 108.

Curriculum, Instruction, and Media (Department, Majors, Minor [Educational Media], Courses)

Students may enter the Department of Curriculum, Instruction, and Media (1) directly from within the College of Education, (2) from the General Studies Program, (3) from other academic units, or (4) from other institutions of higher education. The department offers a major in early childhood education with either a preschool or a kindergarten through grade 3 specialization, a major in elementary education, a minor in educational media, and offers courses for students pursuing the standard high school certification program.

Educational Media Minor

Persons trained as teachers may qualify as a school media professional by completing the following courses: 438, 439, 440, 442, 435 or 445, and Education 304a. Other courses in the utilization and administration of teaching materials are designed to train both audiovisual coordinators and librarians to become fully qualified educational media specialists who can administer all teaching materials.

Bachelor of Science Degree, College of Education

The Department of Curriculum, Instruction, and Media prepares students to qualify for the following Illinois teaching certificates: Early Childhood Certificate (for teaching ages 0-6), Standard Elementary Certificate (for teaching in grades K-9), or Standard High School Certificate (for teaching in grades 6-12).

Early Childhood Education Major

EARLY CHILDHOOD EDUCATION MAJOR — PRESCHOOL SPECIALIZATION

Students interested in teaching children 0-6 years of age in private or state-approved settings may elect to participate in the early childhood preschool specialization programs. This major is jointly offered with the College of Human Resources. Specifically designed to prepare future teachers of children under six, this program will lead to the State of Illinois Early Childhood Certificate. Students wishing the special education endorsement should select the special education option. Students wishing to teach public school kindergarten are directed to the K-3 specialization program.

There are sequential steps for admission and retention in the Preschool/Early Childhood Certification specialization.

1. Completion of Child and Family 240, 245, and Curriculum, Instruction and Media 209 with a grade of *C* or higher, an overall grade point average of 2.15, and a favorable vote of the Preschool Committee based on the student's performance in the above courses.

2. To be eligible for field experience, a student must have attained a minimum overall grade point average of 2.25, successfully completed Child and Family 240, 245, 227, 237, 337, 345, 466, Curriculum, Instruction and Media 209, 317, 318 or Special Education 405, have made preliminary application for field experience and be approved by the coordinator of the Early Childhood/Preschool program based on performance in the above courses.

General Studies Requirements 45
Including GSB 202; 212 or 300 or 301; GSC 100, GSD 117 or 119; GSE 201
Requirements for Major in Early Childhood Education with Preschool Specialization 62
Child and Family 227, 237, 240, 245, 337, 345, 466, 471-6 26

Curriculum, Instruction, and Media 209, 213, 317, 318, 418, 419, 435	21
Food and Nutrition 100	3
Music 303	3
Psychology 301	3
Special Education 400	3
Speech Communication 444	3
Electives	13
Special Education Option — Special Education 405[1] 406, 412	
Total	120

[1]Special Education 405 is taken in place of Curriculum, Instruction, and Media 318 for students electing the special education option; Education 312 is strongly recommended to be taken concurrently with Special Education 405.

EARLY CHILDHOOD EDUCATION MAJOR — KINDERGARTEN THROUGH GRADE THREE SPECIALIZATION

In the early childhood education kindergarten through grade 3 specialization program, special emphasis is placed on teaching young children in the elementary school. This major leads to the State of Illinois Standard Elementary Certificate.

In order to qualify for retention in the teacher education program, students must have completed two Curriculum, Instruction and Media courses with a *C* or higher grade, attained a grade point average of at least 2.20 and have favorable majority vote of the early childhood education faculty on the basis of professional competencies.

General Studies Requirements and Additional General Education Requirements for Major	75
Physical and Biological Sciences (GSA)	11
Social Sciences (Including GSB 202 and 300 or 301, other GSB courses)	11
Fine Arts (Including GSC 100, 101, or 205. Music 101 or two levels of Music 030; Music 300; and Art 348	14
Language Arts (Including GSD 101; 117 or 119; GSD speech and GSC literature)	16
Mathematics (Including Mathematics 114 or equivalent to substitute for GSD 107 and Mathematics 314)	7
Health and Physical Education (Including GSE courses and Physical Education 202	7
Electives (Curriculum, Instruction, and Media 427 recommended)[1]	9
Professional Education Requirements	25
See Teacher Education Program, page 77.	
Specialization Requirements for Major	24
Curriculum, Instruction, and Media 213, 312, 315, 316, 324, 423, 426, 435[1], Vocational Education Studies 368	
Electives	4
Must be taken in Curriculum, Instruction, and Media: recommended are 402, 412, and 419	
Total	128

[1]Applies as a general education certification requirement for major.

Elementary Education Major

A Bachelor of Science degree with a major in elementary education entitles the student to apply for the State of Illinois Standard Elementary Certificate, which will allow the holder to teach in kindergarten through ninth grade.

Elementary education majors may select either an area of interest consisting of

eight semester hours of electives in science, language arts, social studies, mathematics, language other than English, multicultural studies, educational media, the arts, physical education, or environmental education.

In order to qualify for retention in the teacher education program, students must have completed two Curriculum, Instruction and Media courses with a *C* or higher grade, attained a grade point average of at least 2.20 and have favorable majority vote of the elementary education faculty on the basis of professional competencies.

General Studies Requirements and Additional General Education Requirements for Major	67
Physical and Biological Sciences (GSA)	11
Social Studies (Including GSB 202, 212, and 300 or 301)	11
Fine Arts (Including GSC 100, 101, or 205; must include one music and one art course, which may be taken as part of GSC)	9
Language Arts (Including GSD 101; 117 or 119; GSD speech and GSC literature)	16
Mathematics (Including Mathematics 114 or equivalent to substitute for GSD 107 and Mathematics 314)	7
Health and Physical Education (GSE)	5
Electives (May be taken from electives cited under specialization requirements to further enhance and support this area)	8
Professional Education Requirements	25
See Teacher Education Program, page 77.	
Specialization Requirements for Major	26
Curriculum, Instruction, and Media 312, 315, 423, 424, 426, 435[2]	18
Electives	8[1]
Electives to be selected from one of the following areas: science, language arts, social studies, mathematics, language other than English, multicultural studies, educational media, the arts, physical education, or environmental education	
Electives[3] (eight hours must be in Curriculum, Instruction, and Media courses)	10
Total	128

[1]Elective hours from general education may apply; combined total must equal 16 hours.
[2]Applied as a general education certification requirement for major.
[3]Many states require a course on special needs learners and two courses in reading methods. Two courses in reading are required for teaching in Chicago schools.



Secondary Education Majors

Students who elect to pursue a Bachelor of Science degree in the College of Education, for purposes of preparing to teach in junior or senior high schools, should select academic majors and minors from the areas included in the listing below. Included in the column headed Major are those areas for which Southern Illinois University at Carbondale has approval from the State of Illinois Office of Education and from the State Teacher Certification Board.

TEACHING AREA	MAJOR	MINOR[1]
Agricultural Education[2]	X	
Art	X	
Biological Sciences	X	X
Black American Studies		X
Botany[3]	X	X
Business Education[2]	X	X
Chemistry	X	X
Earth Science		X
Economics	X	X
Educational Media		X
English	X	X
Foreign Languages	X	X
Geography	X	X
Health Education	X	
History	X	X
Home Economics Education[2]	X	
Language Arts and Social Studies	X	
Mathematics	X	X
Microbiology		X
Music	X	X
Occupational Education (Industrial Arts and Trades and Industries)[2]	X	
Philosophy		X
Physical Education	X	X
Physics	X	X
Physiology		X
Political Science	X	X
Psychology		X
Social Studies	X	
Sociology		X
Speech Communication	X	X
Theater		X
Zoology[3]	X	X

[1]All minors used for certification purposes must include a minimum of 18 semester hours.
[2]Requirements for programs in agricultural education, business education, home economics education, and occupational education may be found in the catalog section titled Vocational Education Studies.
[3]A student with a major in botany or zoology should have a minor in the other in order to meet certification standards for teaching biology at the high school level.

Each student who wishes to apply for the Standard High School Certificate through the certification entitlement process at Southern Illinois University at Carbondale must fulfill the following requirements of the University's Teacher Education Program:

1. The individual must have completed a baccalaureate program at Southern Illinois University at Carbondale.

2. The individual must have completed one of the approved majors included in the previous listing.

3. The individual must have fulfilled requirements for certification related to the state and federal constitutions and an American government or American history course by either (a) taking GSB 212, or, 300 or, 301; (b) taking a course in American history or political science other than those listed in (a), above, and passing the constitution test administered by Southern Illinois University at Carbondale; (c) presenting written notification from another institution that a course in American history or political science has been passed and that the Illinois and United States Constitutions tests have been passed.

4. The individual must have fulfilled certification requirements in health and physical education which can be satisfied by taking GSE 201 and two hours in GSE 100-114 courses.

5. The individual must have completed the following sequence of professional education courses:

Professional Education Sequence	25
Decision Component	
Education 201[1]	1
Basic Professional Block	
Education 301	2
Education 302	2
Education 303	2
Education 304a, b, c, d, e, f, g, or h	2
Education 312[3]	1
Professional Semester[2]	
Education 350	3
Education 400	4
Education 401	8

[1]Must be completed prior to admission to the teacher education program.
[2]See catalog section titled Professional Education Experience for prerequisite for student teaching in the professional semester.
[3]The following courses are approved substitutes for Education 312 as a part of the professional education requirements for the majors indicated: Art 318 and 328 for art majors; Music 304 and 306 for music majors; Speech Communication 230 and 390 for speech majors; and Speech Pathology and Audiology 105 and 493 for speech pathology and audiology majors.

6. The individual must have completed a special methods course pertaining to the major.

7. The individual must have fulfilled State Teacher Certification Board general education distributions in the required areas: language arts, science, mathematics, social studies, humanities, health and physical education.

Students who wish to prepare to teach in middle school or junior high schools should inform their advisers of this interest early so they can include in their programs those courses which will prepare them for teaching in that area. The student's electives should be planned to include course work in a subject matter area of major interest to the student.

Courses

209-2 Philosophy of Creativity. The creative process in the developing child. Emphasis will be upon the levels, dimensions, and individuality of creativity as it is manifested, observed, and nurtured in preschool children. (To be taken concurrently with Child and Family 240 and 245 by early childhood preschool majors.)

213-2 Understanding the Elementary School Child. Child development concepts necessary for understanding the elementary school child, with information provided on preschool, primary, and intermediate grade levels.

258-1 to 4 Credit for Work Experience. This course includes work experiences relevant to the student's major program, such as work in day care centers, teacher's aid in public

school, or with federal, state, or local agencies or programs that deal with children. Prerequisite: 12 semester hours completed with a grade of *B* or better in the student's major area of concentration in the CIM department and consent of undergraduate affairs committee, Department of Curriculum, Instruction, and Media.

312-3 Teaching Reading in the Elementary School. Examination of the reading process with emphasis on the factors and conditions that affect reading. Emphasis on the formulation of a philosophy of reading and its implications in relation to methods, materials, organizational procedures, and evaluation techniques.

315-3 Teaching Mathematics in the Elementary School. Objectives of mathematics education, learning theory as it is related to mathematics, major concepts to be taught, modern approaches to instruction, with emphasis on the use of concrete learning aids. Four class hours and two laboratory hours per week.

316-2 Early Childhood Education Methods and Curriculum (K-3). Philosophy and principles underlying the teaching of four-to-eight-year olds. Emphasis upon organization, equipment, materials, and methods for promoting growth of young children. Prerequisite: concurrent enrollment in Education 302.

317-4 Early Childhood (Preschool) Curriculum I. Understanding the role of the teacher in integrating the principles underlying the child-development with the natural interests and activities of the child 3-5 through the use of equipment, materials, and educational methods. Emphasis will be on language and affective development. Practical experiences in a preschool setting one-half day per week. Prerequisite: 209 and Child and Family 240.

318-5 Early Childhood (Preschool) Curriculum II. Diagnosing factors in the preschool learning situation, prescribing learning experiences, assessing effectiveness of learning, and developing inquiry. Emphasis on cognitive and psycho-motor development. Practical experiences in a preschool setting — one day or two one-half days per week. Prerequisite: 317.

324-2 Early Childhood Social Learning Methods. The objectives, procedures, and methods of designing and implementing social learning environments for early childhood education programs; including an overview of significant early social learning theory and practice. Two hour block required for practicum experiences.

361-3 Teaching Reading in High School. A foundation course in how to teach reading in junior and senior high school; developmental and remedial reading programs; appraisal of reading abilities; methods and materials of instruction in the content areas.

390-1 to 3 Readings. In-depth reading in various areas of education as related to the fields of **(a)** Curriculum, **(b)** Supervision for instructional improvement, **(c)** Language arts, **(d)** Science, **(e)** Mathematics, **(f)** Reading, **(g)** Social studies, **(h)** Early childhood education, **(i)** Elementary education, **(j)** Middle school, **(k)** Secondary school, **(l)** Disadvantaged children and youth, **(m)** Instruction, **(n)** Educational media. Prerequisite: consent of instructor.

393-1 to 6 Individual Research in Education. The selection, investigation, and writing of a research topic under the personal supervision of a member of the departmental staff in one of the following areas: **(a)** Curriculum, **(b)** Supervision for instructional improvement, **(c)** Language arts, **(d)** Science, **(e)** Mathematics, **(f)** Reading, **(g)** Social studies, **(h)** Early childhood education, **(i)** Elementary education, **(j)** The middle and junior high school, **(k)** Secondary education, **(l)** Disadvantaged children and youth, **(m)** Instruction, **(n)** Educational media, and **(o)** Environmental education. Maximum of 6 hours to be counted toward a bachelor's degree. Prerequisite: consent of instructor.

400-2 Simulation and Gaming. The role of simulation and gaming in instruction, the availability of commercial games and simulation devices, and the theoretical backgrounds used in constructing teacher-made games are to be examined.

401-1 to 3 Problems in Public School Reading. Requires attendance at all sessions of a reading conference; preparation of a paper showing practical applications of theory to the student's own teaching situation.

402-3 Education for Disadvantaged and Culturally Different Students. The student examines the characteristics of behavior and learning patterns of culturally different and socioeconomically disadvantaged children. Content also includes school adjustment, experiential background, self-concept, language development, and appropriate teacher behaviors and teachings strategies.

407-3 to 9 (3 per topic) Diagnostic and Corrective Techniques for the Classroom Teacher. A presentation of diagnostic and remediation techniques with emphasis placed on appropriate methods and materials to be used in classrooms in the areas of **(c)** Language arts, **(e)** Mathematics, and **(f)** Reading. Prerequisite: special methods course in field selected by student and/or consent of instructor.

409-3 Creative Teaching. To assist pre- and in-service teachers in acquiring methods and materials that will improve instruction in the public school classroom, with special attention to the characteristics and needs of students. Prerequisite: Education 302.

410-2 Creative Writing in the Public School. Techniques of encouraging creative writings in the schools.

412-3 to 15 (3 per topic) Improvement of Instruction in Early Childhood Education (Preschool-Grade 3). Examines recent findings, current practices, and materials used in early childhood education in the fields of **(c)** Language arts, **(d)** Science, **(e)** Mathematics, **(f)**

Reading, and (g) Social studies. Prerequisite: specialized methods course for the field of study selected by the student.

415-3 Improvement of Instruction in Middle School Mathematics (Grades 4-8). Examines recent findings, current practices, and materials in the middle school setting. Prerequisite: 315 or consent of instructor.

418-2 History and Philosophy of Early Childhood Education. A survey of the history and philosophies of early childhood education with its implication for current program practices. Students' analysis of their personal philosophy of early childhood education. Prerequisite: 316, 318, senior or graduate standing.

419-3 Parent Involvement in Education. Materials, techniques, and resources suitable for use by teachers in helping parents and teachers to understand how they can help each other in the partnership responsibilities of the education of children from a variety of backgrounds. Prerequisite: 317, student teaching, or consent of instructor.

420-3 Teaching the Adult Functional Illiterate. The emphasis in the course will be on understanding the problems of the individual whose literacy level does not permit full participation in the economic, social, and civic opportunities available to the majority of citizens. Prerequisite: permission of instructor.

423-3 Teaching Elementary School English Language Arts. Oral and written communication processes with emphasis on the structure and process of the English language arts in the elementary school. Specific attention to the fundamentals of speaking English, writing, spelling, and listening. Study of learning materials, specialized equipment and resources.

424-3 Teaching Elementary School Social Studies. Emphasis on the structure and process of teaching social studies in the elementary school setting. Specific attention to the fundamentals of developing social studies objectives, planning units, developing a general teaching model, organizing the curriculum, and evaluating behavioral change. Study of learning materials, specialized equipment, and resources.

426-3 An Introduction to Teaching Elementary School Science. Content and methods of elementary school sciences, grades K-8. Emphasis on the materials and strategies for using both traditional and modern techniques of science education. One or more field trips.

427-4 Science Process and Concepts for Teachers of Grades N-8. (Same as Botany 462.) Specifically designed to develop those cognitive processes and concepts needed by elementary school teachers in the teaching of modern science programs. Lecture three hours per week, laboratory two hours per week. One or two additional field trips required.

435-3 Literature for Children. Studies types of literature; analysis of literary qualities; selection and presentation of books and other media for children; and, integration of literature in preschool, elementary, and library settings.

436-2 Bibliography and Literature of Education. Introduction to the use of library resources for research in education. Includes bibliographies in education, the periodical literature, Office of Education publications, dissertation and thesis indexing services, and the Educational Resources Information Center (ERIC) materials. Students will compile bibliographies in their own fields of interest.

437-3 Educational Media in Training Programs in Business and Industry. The utilization of visual, audio, electronic, display, and print media in industrial and business training programs. Includes experiences in using sources, selecting and evaluating media, the operation and maintenance of media hardware, and the use of multi-media. Not open to students pursuing a graduate major in educational media.

438-3 Introduction to Technical Services. Organization of library materials. Emphasis on cataloging and classification. Includes acquisition, processing, and circulation of materials. The Dewey Decimal classification system and Sears list of subject headings are stressed. Laboratory assignments.

439-3 Basic Reference Sources. Introduction to the principles and methods of reference work. Concentration on the study and examination of the tools which form the basic reference collection of the school and the community college library.

440-3 Selection of Media. Evaluation of print and non-print media; resources and services; competencies for efficient purchasing and selecting of media. Includes selection principles and problems for elementary, secondary, and community college libraries.

442-4 Administration of the School Media Program. Functions and management of elementary and secondary school library media programs with emphasis on services, personnel, financial aspects, facilities, and evaluation. Current issues and trends as reflected in the literature. Field trips to school library media centers.

445-3 Media for Young People. The selection and use of books and other educational media for students in the junior high and senior high school.

450-3 Photography for Teachers. Photography as a tool of communication in the modern school. Techniques of camera handling, visually planning a story, macro-photography, and color slides.

451-3 Photographic Preparation of Educational Media. Techniques of photography used in producing prints, overhead transparencies, daylight slides, high contrast materials, picture stories, filmstrips, and other photographic instructional materials. Prerequisite: 450 or consent of instructor.

453-3 Local Production of Educational Media. The study of the various processes and

techniques used by classroom teachers in the production of locally-made nonphotographic instructional material.

455-3 Organization and Production of Media for Self-Instruction. The study of various programming techniques and the procedures used in producing, designing, and evaluating materials used for self-instructional purposes. Includes organizing a teaching segment and producing the needed materials to create a self-instrumental package.

458-3 Classroom Teaching with Television. Classroom utilization of open and closed circuit television. Emphasis is placed on the changed role of the classroom teacher who uses television. Evaluation of programming, technicalities of ETV, and definition of responsibilities are included. Demonstration and a tour of production facilities are provided.

462-3 Middle and Junior High School Programs. Focuses on the development of middle and junior high school curriculum and the identification of instructional activities which relate to the pre and early adolescent student. It is anticipated that the student will be able to plan and develop teaching units and evaluate procedures complementary to this portion of the school structure.

464-2 Student Activities. Analysis of extra-class activities and programs in public schools with a focus on the status, trends, organization, administration, and problems.

465-3 Advanced Teaching Methods. The focus is on a variety of teaching methods and strategies which are appropriate for secondary and/or post-secondary educators. Both individual and group methods are emphasized.

468-3 Science Methods for Junior and Senior High Schools. A performance-based approach to instructional skills common to teaching natural science at the junior and senior high school levels. Three class hours and one micro teaching laboratory hour per week. Prerequisite: Education 302 or consent of instructor.

469-3 Teaching Social Studies in the Secondary School. Emphasis is placed upon instructional strategies and curricular designs in social studies at the junior and senior high school levels.

481-3 Instructional Applications of Mainframe Computers. Design, development, and programming of computer-assisted instructional materials using interacive, timesharing computer systems. Study of lesson design and programming, including branching and program flow, display techniques, response judging, teaching strategies, organization, and style.

483-3 Instructional Applications of Microcomputers. A study of the history, development, and use of microcomputers and microcomputer systems in education. Emphasis is upon the characteristics, capabilities, applications, and implications of microcomputers and microcomputer lessons with case studies of their integration into the teaching learning process.

496-2 to 6 (2 to 4 per semeser) Field Study Abroad. Orientation and study before travel, readings, reports, and planned travel. Includes visits to cultural and educational institutions. Maximum credit hours in any term is 4.

498-1 to 15 (1 to 3 per topic) Workshops in Education. Critical evaluation of innovative programs and practices. Acquaints teachers within a single school system or in a closely associated cluster of school systems with the philosophical and psychological considerations and methods of implementation of new programs and practices in each of the following areas: **(a)** Curriculum, **(b)** Supervision for instructional improvement, **(c)** Language arts, **(d)** Science, **(e)** Mathematics, **(f)** Reading, **(g)** Social studies, **(h)** Early childhood education, **(i)** Elementary Education, **(j)** The middle school, **(k)** Secondary education, **(l)** Disadvantaged children and youth, **(m)** Instruction, **(n)** Educational media, and **(o)** Environmental education. **(p)** Children's Literature. Maximum of six hours toward a master's degree. Prerequisite: consent of instructor.

500-3 Research Methods in Education.
501-3 Organization and Administration of Reading Programs.
502-3 Education of Disadvantaged Students: Research and Teaching.
504-3 Systematic Approaches to Instruction.
508-3 Supervision of Professional Education Experiences.
509-3 Foundations of Environmental Education.
510-3 Values Education Curriculum.
511-3 Seminar in Psychology of Elementary School Subjects.
512-3 Reading in the Elementary School.
513-3 Kindergarten-Primary Reading.
515-3 Advanced Remediation in Mathematics.
517-3 Early Childhood Programs: Organization and Administration.
518-3 Early Childhood Education.
520-3 The Language Arts in Bilingual Classrooms.
521-8 (4,4) Diagnosis and Correction of Reading Disabilities.
522-3 Teaching Reading Skills to College Students.
523-3 Language Arts in the Elementary School.
524-3 Teaching the Social Studies in the Elementary School.
526-3 Problems in Elementary School Science Education.

531-3 The Elementary School Curriculum.
532-3 Research in Elementary Education.
533-3 Instructional Leadership in Elementary Education.
534-3 Organization of the Elementary School.
538-3 Organization of the Nonbook Collection.
539-3 Reference Services of the Media Program.
540-2 Mass Communications in Education.
542-3 Administration of an Educational Media Center.
543-3 Automation of Information Centers.
544-3 Administration of the Community College Media Program.
546-3 The Library of Congress Classification Scheme.
548-5 Production and Utilization of Media.
549-2 Designing Multi-Image Learning Materials.
550-3 History of Media.
551-4 Survey of Research and Developments in Educational Media.
553-2 Instructional Design.
554-3 Integration of Educational Media.
555-3 Visual Communication.
560-3 Instructional Television.
561-3 Reading in the Secondary School.
569-3 Principles and Trends in Secondary School Social Studies Education.
571-3 Secondary School Curriculum.
572-2 History and Philosophy of Bilingual/Bicultural Education.
573-3 Perspectives on the Future and Its Schools.
574-2 Psycho- and Sociolinguistic Considerations in A Bilingual/Bicultural Classroom.
580-3 Current Developments in Major Subject Areas in Secondary Schools.
582-3 Research in Secondary Education.
583-3 Instructional Theory, Principles, and Practices.
584-3 Curriculum Theory, Foundations, and Principles.
585-3 to 15 (3 per topic) Seminars in Education.
586-3 Curriculum Design and Development.
587-3 Curriculum Implementation and Evaluation.
590-1 to 15 (1 to 3 per topic) Independent Readings.
593-1 to 15 (1 to 3 per topic) Individual Research in Education.
594-(3 to 9 per topic) Practicum.
595-(2 to 8 per topic) Internship.
596-3 to 6 Independent Investigation.
599-2 to 6 Thesis.
600-1 to 32 (1 to 16 per semester) Dissertation.
601-1 to 12 per semester Continuing Research.

Dance (Minor)

(SEE PHYSICAL EDUCATION)

Dental Hygiene (Program, Major, Courses)

This program of study is designed to prepare the student to successfully enter the health profession of dental hygiene. Upon completion of the program, the graduate should be capable of passing the written National Board Examination, State/Regional Examination including the required clinical practical examination.

The primary role of dental hygienists is education and prevention of oral disease. Therefore, they must have a basic knowledge of the human body and a detailed knowledge of the oral cavity. The student develops skill, dexterity, and use of judgment in procedures relating to preventive dentistry on clinical patients scheduled in the dental hygiene clinic. Services provided by the dental hygienist are regulated by state laws which vary among the states, but all include the services of scaling and polishing teeth, x-ray examination, patient education and nutritional counseling, application of preventive medicaments, administrative procedures, chairside assisting, and some laboratory techniques. All the services must be performed under the supervision of a dentist.

Since the curriculum includes many science courses the entering student should have a thorough background in the basic sciences including chemistry, biology, and general sciences. Facilities limit enrollment to 56 students admitted only in the fall semester. Additional application information is required other than that required for admission to the University, including the results of the Dental Hygiene Aptitude Test. This test should be taken at the fall testing date a year prior to the fall semester of admission. Additional expenses of approximately $2600 are required to cover the cost of instruments, uniforms, insurance, and other items in addition to textbooks.

The program is served by an advisory committee made up of practicing dentists and dental hygienists. These members include: dean, School of Dental Medicine, Southern Illinois University at Edwardsville; president, Southern Illinois Dental Society; dentist and dental hygienist; Veteran's Administration Hospital, Marion; dentist, Federal Penitentiary, Marion; president, Illinois Dental Association; chief, Division of Dental Health, Department of Public Health, State of Illinois; practicing dentists and dental hygienists, State of Illinois; and a student member.

A licensed dental hygienist may be employed in private practice offices, in school systems, in industrial health clinics, as civil service employees in governmet agencies or, with additional education, as a teacher in dental hygiene schools, in public health, in research, in administration, or as a commissioned officer in the armed services.

This associate degree program can be completed in two academic years, plus one summer session, at Southern Illinois University at Carbondale graduating with an Associate in Art degree from the School of Technical Careers. This program is fully accredited by the Council of Accreditation of the American Dental Association.

Associate in Art Degree, School of Technical Careers

Requirements for Major in Dental Hygiene

GSA 209	3
GSB 202, 203	7
GSD 101, 152	5
Chemistry 140a,b	8
Microbiology 201	4
Physiology 301	4
Dental Hygiene 133, 136, 137a,b, 138, 201, 209, 210a,b, 211, 215, 217, 218a,b, 220a, b, 240, 241	57
Total	88

Courses

133-2 Histology and Embryology. The student will learn the microscopic components of the primary tissue groups of the human body and will be expected to identify microscopically in detail, the dental tissues of the oral cavity. The course also enables the student to relate the embryonic development of the head to the normal and abnormal structures of the adult head and oral cavity. Lecture two hours.

136-4 Cranial and Oral Anatomy. During the first part of the course, the student will study the detailed anatomic structures of the head and neck including skull, muscles, nerves, and blood supply. Following this, the student will learn to recognize and identify in detail the structures within the oral cavity including the tongue, salivary glands, lips and cheeks, and cheeks and teeth, both permanent and primary. Lecture three hours. Laboratory three hours.

137-10 (5,5) Pre-Clinical Dental Hygiene. **(a)** The student is introduced to the profession of dentistry with emphasis on the role and duties of a hygienist. Basic skills and techniques of instrumentation will be acquired using manikins in the laboratory followed by clinical experience on selected patients. Included will be didactic instruction in normal and abnormal tissue conditions, the role, function, and structure of calculus deposits. Additional skills, techniques, and procedures include clinical rules and procedures, aseptic technique, patient and operator positioning, rules of professionalism. Lecture two hours. Laboratory

six hours. **(b)** The student will continue to apply information and skills learned in **(a)** on selected patients with varying oral hygiene needs. New information, procedures, and skills will be introduced during the course with the student expected to master one area before proceeding to the next. Included are complete health histories, office emergencies, charting for deposits and tissue conditions, auxiliary scaling instruments, rationale and techniques of polishing. The ability to perform basic dental health education and manage patients with specific physical and mental problems will be developed. Lecture two hours. Laboratory six hours. Must be taken in a,b sequence. Prerequisite: 136, 137a, 215, Chemistry 140a.

138-3 Pathology. The student will learn to recognize the appearance, causes, and body's responses to pathological conditions including congenital disorders, circulatory, and neurological ailments, tumors and neoplasms. Special attention will be placed on pathological conditions of the oral cavity including dental caries, periodontal disorders and lesions of the hard and soft tissues. The student will apply this knowledge by giving intra and extra oral examinations on selected patients and recording the findings. Lecture two hours. Prerequisite: 133, 136, 218b, Physiology 301, GSA 209, Microbiology 201; concurrent enrollment in 241.

201-4 Dental Materials and Assisting Techniques. The student will study the physical and chemical properties of various dental materials used in dental practice including plaster and stone, impression materials, synthetic resins, metals and cements. In the laboratory the student will manipulate those dental materials and recognize the effects of proper and improper techniques. Emphasis will be placed on dental assisting techniques for both operatory and laboratory in the generalist and specialist type of practices. Lecture three hours. Laboratory three hours. Prerequisite: 209, 218b.

209-3 Dental Hygiene Clinic. The student will perform professional services of a hygienist on designated clinical patients and is expected to demonstrate improvement of skills covered in 137 a,b. Additional skills incorporated into clinical procedures include application of flouride gels, maintenance and sharpening of scaling instruments, recognition and detection of carious lesions, extended or home care education, auxiliary polishing devices, caries etiology tests and nutritional counseling. Laboratory 12 hours, eight weeks. Prerequisite: 133, 137b, Chemistry 140b, Physiology 301.

210-12 (6,6) Clinical Dental Hygiene and Radiology. **(a)** The student will continue to perform the professional services of a hygienist on designated clinical patients and will be expected to demonstrate improvement of skills covered in 137a,b and 209. Those skills incorporated into clinical procedures include application of fluoride gels, maintenance and sharpening of scaling instruments, recognition and detection of carious lesions, extended home care education, auxiliary polishing devices, caries etiology tests, and nutritional counseling. Dental radiographs will be taken on clinical patients as a part of required clinical experience. Laboratory 12 hours. Prerequisite: 209, 217, 218b, Microbiology 201. **(b)** The student continues clinical experience and is expected to show improvement in skills and abilities. Additional procedures include application of stannous fluoride, patient control programs, complete charting of the oral cavity, care of dental prosthesis, use of ultrasonic cleaning devices, measurement of periodontal pockets, and maintenance of dental equipment. Additional clinical experience is provided in the Model Cities clinic. Students will continue to take dental radiographs on clinical patients as a part of required clinical experience. Laboratory 12 hours. Prerequisite: 138, 201, 210A, 240, 241.

211-2 Seminar. Theoretical content is presented covering procedures and techniques incorporated into the concurrent clinic course. Additional requirements include dental specialties presented through guest lecturers with two abstracts of published articles relating to those specialites; reports on model cities assignments and outside activity experiences with a research paper on some phase of dentistry; assignment of paper on patient problems which incorporate and correlate course material from preceding courses. Lecture two hours. Prerequisite: 215, 241; concurrent enrollment in 210B.

215-1 Ethics, Jurisprudence, and Office Management. The student will identify the rules of conduct and behavior that a dentist and hygienist must adhere to; differentiate between ethical and unethical, legal and illegal behavior, and understand the consequences of unethical and illegal acts relating to the practice of dentistry. Professional responsibilities and legal obligations of the dental profession and how to prevent a malpractice charge or lawsuit will be included.

217-2 Dental Nutrition. The biologic functions of essential nutrients are studied in their relation to growth and development of dental and oral tissues. Nutrition in health and disease is considered in detail; food sources of essential nutrients are identified. Knowledge gained is applied to the nutritional management and prevention of dental health problems in clinical practice through dietary counseling. Lecture four hours, eight weeks. Prerequisite: Chemistry 140 a, b; Physiology 301.

218-4 (2, 2) Dental Radiology. **(a)** The student will learn the techniques of exposing, processing, and mounting bitewing and periapical dental x-ray surveys, and will learn how x-rays are produced, hazards and precautions in using x-ray equipment, and the chemical composition and action of processing solutions on x-ray film. In the laboratory, the stu-

dent will receive individual assistance in learning the techniques of exposing and processing films. (Lecture three hours. Laboratory three hours. Eight weeks.) Prerequisite: 136, 137a, Chemistry 140a. **(b)** The student will learn special dental survey techniques including paralleling, occlusal, and special views, and will identify anatomical landmarks and recognize appearance of pathological conditions as viewed on dental x-rays. In the laboratory the student will receive assistance in learning special survey techniques. Lecture one hour. Laboratory two hours. Must be taken in a,b sequence. Prerequisite: 133, 218a, GSA 209, Physiology 301.

220-6 (3,3) Community Dentistry. **(a)** Includes both the theoretical and practical aspects of preventive dentistry and public health. The student will discuss various methods utilized in developing, implementing, and evaluating plaque control and will have the opportunity to design a preventive dental program. In addition, the principles and practice of public health will be discussed. Emphasis is placed on the role of the dental hygienist in public health programs and related practical problems. Incidental expenses will be at least $7.50 per semester. Lecture two hours. Laboratory two hours. **(b)** Continuation of public health with field experience. Dental health education with field experiences in student teaching in the elementary district schools. Incidental expenses will be at least $7.50 per semester. Lecture two hours. Laboratory two hours. Must be taken in a,b sequence.

240-2 Dental Pharmacology and Anesthesia. The student will recognize the various types of drugs, their actions and effects on tissues of the body. Special emphasis will be placed on those drugs most commonly prescribed by the dentist. The student will study the anesthetics commonly used in a dental office and the techniques of administering them. Lecture two hours. Prerequisite: Chemistry 140B, Physiology 301, GSA 209, Microbiology 201.

241-2 Periodontology. The student will be introduced to the specialty of periodontics, including a review of the topics of classification, etiology, and the treatment of periodontal disease. Clinically, the student will perform a complete examination, scaling and root planing for the periodontal patient as presented in theory in this course. Consideration will also be given to special adaptations and recommendations of oral physiotherapy for the periodontal patient. Prerequisite: 209, 217, 218b, Microbiology 201; concurrent enrollment in 138.

Dental Laboratory Technology (Program, Major, Courses)

The dental laboratory technology program prepares the student to be a competent dental technician in the commercial laboratory, an educational institution, a dental manufacturing company, or the private dental office. To implement the goal, the prospective student must satisfactorily meet the requirements of courses in both the dental laboratory area and in the science, business, and humanities area.

Persons interested in careers in dental technology should have a sincere interest in working with their hands and find satisfaction in their creative work.

Enrollment of beginning students is limited by size of faculty and physical facilities with new students admitted only in the fall semester. Additional application information is required other than that required for admission to the University.

An advisory committee whose members are drawn from the profession and from educational institutions serves the program. Current members are: Clifford Neill., DDS, Carbondale; Sam Bono, dental technician, Florissant, Mo., Tilghman S. Tade, CDT, Tade Dental Laboratory, Belleville; Jim Snodsmith, CDT, Snodsmith Dental Laboratory, Mt. Vernon; William Cotton, DDS, U.S. Naval Dental Research Institute, Bethesda, Md.; Andrew Larson, executive director, Illinois Dental Lab Associaton, Northfield; Dan Sullivan, Ney Gold Company, Kirkwood, Mo.; and Todd Toepper. TNT Dental Laboratory, Janesville, Wisc.

Graduates of the two-year dental laboratory technology program find that career opportunities are excellent. The trained dental technician not only has a wide choice of geographic location for the pursuit of a career, but can also choose working conditions. Graduates are employed by commercial dental laboratories, dental schools, dental supply companies, private dental offices, or are self-employed in their own dental laboratories.

The student should expect to spend about $525 for a dental kit, laboratory jacket, and Delta Tau Club fee over the two-year period.

This associate degree program can be completed in two academic years at Southern Illinois University at Carbondale or in combination with community college or other acceptable extra-institutional educational experience.

Associate in Art Degree, School of Technical Careers

Requirements for Major in Dental Laboratory Technology

GSD 101, 152	5
Accounting 110	3
GSA 106, 209	6
School of Technical Careers 102	2
Dental Laboratory Technology 102, 103a,b 104a,b, 106, 113a,b, 128, 143, 200, 202, 204a,b, 206a,b, 210	61
Total	77

Courses

102-4.5 Tooth Anatomy Theory and Laboratory. The student will be able to write definitions on the nomenclature of teeth and their supportive structures; draw five different peripheral views of maxillary and mandibular teeth; carve maxillary and mandibular teeth in plaster, three times natural size and in wax, natural size. Lecture three hours. Laboratory 17 hours. Five weeks.

103A-4.5 Complete Dentures Theory and Laboratory. The student will be able to: write the steps of denture construction; identify and use impression materials, lab stone and lab plaster, acrylic resins, and articulators, namely the Hanau Model H and Whip-Mix; construct edentulous casts, individual trays, base plates, occlusal rims; and mount casts on the above named articulators. Lecture three hours. Laboratory 17 hours. Five weeks. Prerequisite: 105.

103B-4.5 Advanced Complete Dentures Theory and Laboratory. The student will be able to: describe the theory inherent in all phases of full denture construction; set up teeth on the Hanau, Whip-Mix, and Simplex articulators; select and set teeth for different classes of arch forms; wax, invest, process and finish full dentures; rebase, reline, duplicate, and repair full dentures. Lecture three hours. Laboratory 17 hours. Five weeks. Prerequisite: 103A.

104A-4.5 Removable Partial Dentures Theory and Laboratory. The student will be able to: write the basic steps of partial denture construction, identify and use impression materials, laboratory stones, plaster, surveyors, waxes, and different types of forms of artificial teeth; construct and mount master casts, survey and design partial denture cases, and arrange teeth. Lecture three hours. Laboratory 17 hours. Five weeks. Prerequisite: 103B.

104B-4.5 Advanced Removable Partial Denture Theory and Laboratory. The student will be able to: describe and do the planning, designing, and surveying of partial dentures; construct a refractory cast, wax, invest, and finish partial denture frameworks; set up artificial teeth on the partial frames; and repair broken partial. Lecture three hours. Laboratory 17 hours. Five weeks. Prerequisite: 104A.

106-4.5 Dental Orthodontics and Pedodontics. The successful student will be able to fabricate a maxillary hawley, a mandibular hawley, holding arch, share maintainer, suture opener, tongue spikes, tongue crib, occlusal-palatal splint, space regainer, stabilizing plate, and bite planes and obturator; operate the soldering machine and equipment associated with it; write the gauges of wires that are used for the othodontic appliances; and write the theory that is associated with the fabrication of the above named appliances. Lecture three hours. Laboratory 17 hours. Five weeks. Prerequisite: 104b.

113A-2 Science of Dental Materials. The student will be able to: identify orally, as well as written, the uses and composition of dental gypsum products, namely, plaster, stones, and investments, impression materials, dental resins, dental cements, polishing agents, abrasives, and dental waxes. Lecture two hours.

113B-2 Science of Dental Materials. The student will be able to identify orally, as well as written, the physical and mechanical properties of metals and alloys, namely, dental golds, chrome cobalt alloys, and nickel cobalt alloys; the control of their physical properties, namely, strain hardening, alloying and heat treatment, the chemistry of tarnish and corrosion, gypsum investments for inlay procedures, casting and soldering techniques, and dental porcelains. Lecture two hours.

128-1 Oral Anatomy. The student will be able to identify the anatomical features of the head and oral cavity; identify the blood and nerve supply to the oral cavity and area; be able to list the muscles of mastication, and know the origin and insertion of each muscle;

identify the anatomical parts of the maxilla and mandibule; differentiate the movements of the mandibule; and be able to identify the temporamandibular articulations. Lecture one hour.

143-1 Orientation to Dental Technology. The student will be able to: identify the specialties of dental technology; identify opportunities for the dental technician in the large laboratories versus the small laboratories or the dental office; identify the differences in laboratory prices from different parts of the country, and what determines laboratory prices; write, and orally report, on a term project resulting from an interview with a dental technician, who is a laboratory owner, or who is working as a technician in a dental laboratory. Lecture one hour.

200-4.5 Dental Occlusion. The successful student will be able to draw peripheral views of maxillary and mandibular teeth, and identify the occlusal anatomy; write and identify the functions of the muscles of mastication including origins and insertions; write and identify the anatomy and function of the tempromandibular joint including ligaments; write and identify the nomenclature of occlusion; write and identify the theory inherent in occlusion; wax a maxillary and mandibular quadrant in cusp marginal ridge occlusion and cusp fossa occlusion; and wax a natural full mount rehabilatation case using the principles of occlusion discussed in lecture. Lecture three hours. Laboratory 17 hours. Five weeks. Prerequisite: 102.

202-1 Professional Ethics. The student will be able to differentiate between the organizations affecting dental laboratories; be able to identify the industry and its members, and to identify the ethics necessary in dealing and cooperating with the dental profession, and will know the legal requirements of the technician and the dental laboratory. Lecture one hour.

204A-4.5 Beginning Crown and Bridge Theory and Laboratory. The student will be able to: write the definitions of the nomenclature of beginning crown and bridge prosthetics; communicate orally, as well as written, the theory that is necessary for successful completion of the laboratory projects; construct amalgam, stone and copper plated dies; construct master and working casts; construct full and veneer crown, acrylic jackets, inlays and onlays; and operate and maintain crown and bridge laboratory equipment. Lecture three hours. Laboratory 17 hours. Five weeks. Prerequisite: 203.

204B-4.5 Advanced Crown and Bridge Theory and Laboratory. The student will be able to: write definitions of the nomenclature of advanced crown and bridge; identify soldering and heat treatment techniques; differentiate between different types of pontics, waxing, venting, and sprueing techniques; write the theory inherent in broken stress bridgework, Steele's facing bridgework, telescope bridgework, and cantilever bridgework; list and perform techniques in crown and bridge repair; identify causes and remedies for porosity, open margins, and general casting failure in crown and bridge construction; and, construct a six-unit maxillary Steele's facing bridge, a five-unit broken stress bridge, and an eight unit telescope bridge. Lecture three hours. Laboratory 17 hours. Five weeks. Prerequisite: 204A.

206A-4.5 Dental Ceramics Theory and Laboratory. The student will be able to: write definitions of the nomenclature of ceramics; identify porcelain constituents; identify the parts of the procelain furnace and their use; construct platinum matrices; and, construct six maxillary porcelain jackets. Lecture three hours. Laboratory 17 hours. Five weeks. Prerequisite: 208.

206B-4.5 Advanced Dental Ceramics Theory and Laboratory. The student will be able to: draw substructure design for single and multiple unit bridgework; write the theory of color control, demonstrate the uses and maintenance of porcelain equipment, construct single and multiple unit porcelain to gold bridgework; and, demonstrate a working knowledge of staining and shade control. Lecture three hours. Laboratory 17 hours. Five weeks. Prerequisite: 206A.

210-4.5 Dental Laboratory Specialty. The successful student will be able to fabricate dental prosthesis on practical laboratory cases in one of the following specialty areas: full dentures, partial dentures, crown and bridge, or ceramics. Laboratory 20 hours. Five weeks. Prerequisite: all of 100 and 200 level Dental Laboratory Technology Courses.

Design (Major, Courses)

The design program is a part of the Division of Comprehensive Planning and Design.

A major in design follows one of three specializations, while at the same time maintaining a core program. The core provides a systems approach to problem solving, while being sensitive to the needs of the areas of specialization. The areas of specialization from which the student may select at the beginning of the junior year are visual communications, urban planning, and product design. The

freshman and sophomore years are preparatory and allow the student to carry the required General Studies courses.

The program recognizes as a goal the maintenance of an educational experience which fosters in individuals a sensitivity and openness to themselves and their environment through an integration of design skills with problem solving strategies and concepts relevant to present and future events. In addition, students and faculty engage in socially useful design research and provide appropriate services to the University and the community.

Bachelor of Arts Degree, College of Human Resources

General Studies Requirements		45
GSA (three areas)	9	
GSB (three areas)	9	
GSC (three areas) including GSC 205	12	
GSD	11	
GSE	4	
Requirements for Major in Design		68
Design Core	47	
Design 100, 102, 150, 152	15	
Design 200, 201, 202, 252, 254, Industrial Technology 105	17	
6 hours selected from 300, 301, 302, 303, 350, 351, 352, 353, 354, Comprehensive Planning and Design 391	6	
9 hours selected from 400, 401, 405, 406, 450	9	
Specialization Requirements	21	
Electives		7
300-level courses or above outside Design. May include General Studies courses		
Total		120

Design Specializations

Visual Communications: 322, 372, 373, 422, 423, 472 or other courses approved by the division.

Urban Planning: 332, 333, 380, 381, 432, 433 or other courses approved by the division.

Product Design: 312, 313, 362, 412, 413, 462, 463, 464, 465.

A special major may be planned with the approval of the director of the Division of Comprehensive Planning and Design.

Courses

Students will be expected to purchase their own materials in some of the courses offered in Design.

100-3 Structure and Form. The study of structure and form through examples selected from the world of natural objects, of man-made artifacts, and of abstract structures. Includes elementary model-building exercises.

102-5 Design Fundamentals. Dialogue, problems and experimentation are used to illuminate the creative problem-solving processes and fundamental cognitive skills of the designer. The individual engages in a variety of projects dealing with such subjects as visual communications, environmental planning, structures, and product design.

103-3 The Way Things Work. A study of various contemporary artifacts designed for our environment and how they work. This course will not be a technical course but a general overview of these artifacts and how they perform the functions they are designed for.

150-4 Foundations in 2-D and 3-D Design. Introduction to the principles of two and three dimensional relationships with emphasis on special techniques, elements of form, light, color, and increased perceptual skills.

152-3 Introduction of Systems Approach to Design. Course material covers the historical foundations of general systems theory and the search for universal principles underlying all open systems. The student is introduced to a unique set of principles for problem solving which apply to all aspects of the design process. Specific design problems will be used

to demonstrate how the principles can be generally applied to a large variety of design functions, including the selection of alternatives and the optimization of the final product.
200-3 Basic Representation Fundamentals. Drawing fundamentals, basic freehand drawing principles, architectural sketching, and finished rendering techniques as used to solve design problems and communicate solutions.
201-3 Survey of Design. A critical study of a design field from prehistoric periods to the modern era with reference to the social, political, and technological movement which affected their development. Prerequisite: consent of chairperson.
202-3 Basic Materials and Processes. Introduction to tools and skills used in the manipulation of wood, metal, and plastics. Emphasis is placed on projects selected by the students to enhance their ability to solve problems in terms of specified materials and processes.
252-3 Human Engineering for Designers. An introduction to basic human-machine concepts specifically oriented to design students. Subjects include sensory and motor processes, space and arrangement, and environmental factors in design. Prerequisite: 152.
254-3 3-D Modeling Techniques/Basic Photography. This course is divided into two parts: an exploration into the techniques of three dimensional model making as a communication and research tool; and an introduction to the basic techniques of photographic image generation, experimentation in photographic techniques and materials, and transmission of ideas through the photographic image. Prerequisite: 102, 150, 152, 200, 201, 202, or consent of chairperson.
300-3 Graphic Reproduction. Exploration of the various techniques and methods utilized by the designer in preparing communication messages for production. Coursework will deal in such topics as paste-up, keyline, scaling photography, cold type and photocomposition, typography, and offset duplication. Prerequisite: 254.
301-3 Structures for Designers. Description and design of elementary physical structures. Includes survey of architectural design. Introduces the computer as a tool for drawing geometrical forms.
302-3 Applied Systems Theory to Design. A pragmatic design course emphasizing the application of systems theory to the design of special environments; e.g., environments for the handicapped, the blind, paraplegics, the elderly, etc. Students have the option of selecting their own projects which they carry through from the conceptual and analytical stage to construction of models. Prerequisite: 152.
303-3 Design Foresight and Assessment. Introduction and overview of the foresight and assessment functions for designers. Includes an exploration of alternative futures and futures-creating methods, types and procedures of planning, implementation processes and techniques, and assessment of the consequences of proposed action.
304-3 Reprographics. An introduction to the field of reprographics, reproduction of images by means of office copying and duplicating equipment. Coursework will include an examination of the processes available, a survey of the equipment and methods, and graphic standards and techniques that can be utilized.
312-3 Product Design Analysis. An introduction to product evaluation techniques, such as human engineering, consumer safety, environmental impact, design liability, and patent protection.
313-3 Materials and Methods I. Exploration of methods, tools and materials for developmental prototyping.
322-3 Visual Communication I. Introduction to visual communication, including exploration of words, images, and symbols. Experimentation with graphic techniques and processes. Emphasis on solving basic visual communication problems. Prerequisite: 150, 152, 200 and 300.
332-3 Survey of Urban Design. Introduction to the study of human settlements. Estimation of the ways cities, landscapes, and buildings have been built. Critical analysis, through historical and contemporary case studies, of the major issues and problems of the urban environment as they affect the individual.
333-4 Urban Design I. Continuation and development of skills learned in core courses by work in projects of small scale dealing with a variety of environments. Prerequisite: 332 or concurrent enrollment.
342-3 Introduction to Computer Graphics. Introduction to the use of the computer in the production of graphic images. Topics include the definition of two- and three-dimensional data, the generation of engineering and perspective images, and animation. Prerequisite: Computer Science 202.
350-3 Research Methods for Designers. An exploration of research methods for designers, both qualitative and quantitative, including search methods, observational methods, experimental methods, and systems, simulation, and gaming methods.
351-3 Cross Cultural Problem Solving. Development of design projects within the cultural conditions outside of the United States through field study trips when possible to arrange or orient lectures and other insight material. A hypothetical follow through on the development of design projects within a selected country exposing sociological and marketing pertinent of ensuing limitations of that country.

352-3 Design Methodology. The processes of design, from recognition of a need, through definition of the problem, its analysis, synthesis and evaluation of feasible solutions; selected design methods will be explored, with special emphasis given to design science methodology.
353-3 Projected Images. Experimentation into various forms of projected images as a form of visual expression and documentation. Prerequisite: 150, 254 or concurrent enrollment.
354-3 Introduction to Design Science. An exploration of the seminal work of Buckminster Fuller: his philosophy, conceptual tools and generalized principles; introduction to synergetics; comprehensive anticipatory design science, and the World Game.
362-3 Product Development. Investigation and identification of significant product related human need areas. Application of development methodologies in selected product design projects.
372-3 Visual Communication II. An investigation of the theories and methods of visually communicating concepts and information. Emphasis is placed on the analysis of the communications need and progresses through the production of items in prototype form. Prerequisite: 102, 254 or concurrent enrollment, 322 or consent of chairperson.
373-3 Serigraphy. Introduction to serigraphy (silk screen printing) as a tool of visual communication. The course will be especially useful in providing the graphic reproductive capability for testing designs made in other classes. Various kinds of stencils will be explored: photographic as well as hand made. Prerequisite: 254.
380-2 Environmental Aspects of Urban Planning. Study of the needs of environmental control, including thermal, luminous, sanitary, and acoustic aspects of building and urban environments, building systems, and urban developments.
381-4 Urban Design II. Continuation of Urban Design I with emphasis on projects of greater scale. Educational environments and others of a socially useful nature will be examined. Prerequisite: 333, 380 or concurrent enrollment, consent of chairperson, and declared specialization in urban design.
392-3 Elementary Topics in Computer Aided Design. Elementary application of computers to the design process. Selected topics include structural studies, environmental systems, architectural design, and system analysis. Prerequisite: 342, Computer Science 202 or consent of instructor.
400-3 Portfolio and Resume. An investigation and implementation of the planning, production, and management of interface information such as resume, portfolio, and presentation of self. Not for graduate credit. Prerequisite: 200, 201, 202, 250, 252, 254 plus 9 hours elective on 300 level or consent of chairperson.
401-3 Problem Solving in Applied Design. A design team approach solving real problems utilizing the methods and techniques acquired in the design program. Prerequisite: senior standing or consent of instructor.
405-3 Environmental Graphics. An introduction to the theory and practice of designing meaningful symbols for the public environment, including spatial perception and typography as related to signage systems, imagery, symbols, color, and light. Not for graduate credit.
406-3 Exhibition Design. Techniques of exhibition design from two dimensional linear displays to freestanding traveling units. Not for graduate credit.
412-4 Practicum in Product Design. Advanced comprehensive product design projects developed into production prototypes. Not for graduate credit.
413-3 Professional Practice in Product Design. The study of designer/client relationships, business practices, design office procedures, and professional ethics. Prerequisite: senior standing or consent of instructor.
422-3 Visual Communication III. Principles of visual message making and investigation of symbols as they are used in communication. Study includes the development of contemporary communication techniques including photographics, topography, color, and illustration as well as learning to identify techniques and processes of communication. Not for graduate credit. Prerequisite: 372.
423-3 Multi-Media Exploration. Experimentation into various forms of electronic and sensory media as a form of visual expression, documentation, and research. Film making, animation techniques, 35mm slide format and VTR will be explored. Not for graduate credit. Prerequisite: 372 and 373.
432-3 Landscape Architecture. Study of the principles of urban and regional landscape architecture and an introduction to the elements of landscape and architecture. Site analysis and site planning are studied in relation to structures and large scale developments. Technical aspects of site development are stressed. Prerequisite: 333.
433-4 Urban Design III. Continuation of Urban Design II with emphasis on client interaction. Projects dealing with community groups and advocacy planning needs will be dealt with where appropriate. Not for graduate credit. Prerequisite: 381.
450-1 to 6 Internship. Supervised work experience related to student's academic program and career objectives. Not repeatable for credit. Not for graduate credit. Prerequisite: consent of chairperson. Mandatory Pass/Fail.

462-4 Research in Product Design. An in-depth investigation and exploitation of a selected production material (plywood, sheet metal, plastic sheeting, etc.). Prerequisite: senior standing or consent of instructor.
463-4 Products for Special Populations. Products for special subset groups within greater population norms. May be of cross-cultural and interdisciplinary implementation. Not for graduate credit.
464-4 Environmentally-Integrated Products. Development of products integral to comprehensive environmental planning. Not for graduate credit.
465-2 to 4 Independent Study in Product Design. Creative project developed by student and faculty sponsor and approved by director. Prerequisite: 462.
472-3 Visual Communication IV. Advanced problems in visual communication: the development of a corporate identity. Assigned projects simulate design studio procedures for solving contemporary visual identity problems. Prerequisite: 422.

Early Childhood Education

(SEE CURRICULUM, INSTRUCTION, AND MEDIA)

Earth Science (Minor)

This course of study is designed for the student with an interest in the interdependent dynamic processes that take place on and near the earth's surface. At present the program is structured to complement a major in another discipline. This work may be taken through the College of Liberal Arts, the College of Science, or the College of Education.

A minor in earth science consists of a core program of 15-17 hours and 7 to 9 hours of electives, as follows:

Core Program 15-17
GSA 110, GSA 330 or Geography 331 and Geography 302
Plant and Soil Science 346 or GSA 312
Geology 221 or 400

Electives 7-9
Appropriate substitutions may be made with the approval of the adviser.
GSA 322, 240
Geography 310, 432, 424, 438
Geology 425
Plant and Soil Science 240

Economics (Department, Major, Courses)

The study of economics provides a useful means of analyzing the behavior of consumers, businesses, and government so that the student can better understand many of the problems facing contemporary society. Majoring in economics gives the student an analytical ability and flexibility that is attractive to a wide range of employers in both business and government. Economics is also an excellent major for students who are considering graduate school in law, business, or any of the social sciences.

A student can major in economics in the College of Liberal Arts or the College of Education. The economics major in the College of Liberal Arts provides the most flexible program with 30 to 36 hours of electives. This flexibility allows the student to follow a program oriented toward a wide range of careers in government and business or to prepare for graduate study in any of several areas. The economics major in the College of Education is offered for students who are planning to teach social sciences at the secondary school level.

Economics courses at the 300 level generally require only a limited background

in introductory economics, while many economics courses at the 400 level require Economics 340 (440) and 341 (441) as prerequisites. Students considering graduate study in economics should also plan to take Economics 340 and 341 as early in their college careers as possible and should choose several courses at the 400 level to complete their major requirements. A student considering graduate study in economics should also plan to take Mathematics 139 and 140 or 111 and 150 (the latter two courses are better preparation for additional courses in mathematics).

Students are urged to discuss their major programs with the director of undergraduate studies or with any other professor in the Department of Economics; the department also has a director of career information and placement available for consultation.

Bachelor of Arts Degree, College of Liberal Arts

General Studies Requirements	45
Supplementary College Requirements (See page 84)	(4) + 8-14
Requirements for Major in Economics	31-32
One course from the following all of which are approved substitutes for GSD 107: Mathematics 116, 117, 140, 150. The student will automatically satisfy a portion of the General Studies Area D requirements with any one of these courses. Four hours are already included in total hours shown for General Studies Requirements	(4) + 0-1
Economics 214, 215, 340, 341, 308	16
Any five remaining economics courses except 301, 490	15
Electives	29-36
Total	120

Bachelor of Science Degree, College of Education

General Studies Requirements	45
Requirements for Major in Economics	31
Economics 214, 215, 340, 315 or 341	12
GSD 110	2
Any additional 18 hours in economics excluding 301	17
Professional Education Requirements	27
See Teacher Education Program, page 77. Curriculum, Instruction, and Media 469	
Electives	17
Total	120

Honors Program

Students who are economics majors and working toward a Bachelor of Arts degree in the College of Liberal Arts may choose to enter the Honors Program if they have a minimum cumulative grade point average of 3.0 in all prior courses in economics.

As part of the ten economics courses required for a major, students in the honors program will be required to take 443 and any two other 400-level economics courses, except 425, 440, 441, 471, 479, and 490.

In order to be granted departmental honors, a student must have attained at graduation, a minimum cumulative grade point average of 3.0 in economics courses taken.

Minor

For students majoring in other departments, a minor in economics is useful for employment in business or government and for graduate work in any of the social

sciences, law, or business. The minor requires 15 hours of work in economics including Economics 214 and 215. Approval of the minor program by the director of undergraduate studies is required in order to assist students in designing coherent programs to meet their individual interests.

Courses

214-3 Introduction to Macroeconomics. Determination of income, employment, output and price levels in the national economy; government taxation, expenditure, and monetary policies to solve problems such as inflation and unemployment. Elective Pass/Fail.
215-3 Introduction to Microeconomics. Study of businesses, consumers and the government and their effects on prices, output and income distribution. Current economic problems will be used as illustrative examples. Elective Pass/Fail.
300-3 to 9 Contemporary Economic Problems. A study of one or more contemporary economic problems. Problems chosen vary from semester to semester and the topic will be announced in advance. Prerequisite: 214, 215 or GSB 211 or consent of instructor. Elective Pass/Fail.
301-1 to 6 Economic Readings. Readings in books and periodicals in a defined field, under direction of one or more faculty members. Periodic written and oral reports. Prerequisite: consent of instructor and department chairperson. Elective Pass/Fail.
303-3 Poverty and the Economy. Poverty as a study of income inequality. Economic determinants of income inequality are isolated and related to current policy proposals. Elective Pass/Fail.
304-3 Economics of the Welfare State. Analysis of programs and proposals attacking poverty, insecurity, inequality of opportunity, and maldistribution of income. Analyzes such programs as social security, unemployment compensation, medical care, income maintenance, public assistance, housing, and job creation. Economic foundations and consequences are linked with social and political problems. Elective Pass/Fail.
308-4 Economic and Business Statistics. Survey of the foundations and applications of the principal statistical methods used in economic and business decision making. Included are probability theory, probability distributions, and testing of hypotheses about, and estimation of, the important types of population parameters. Elective Pass/Fail.
310-3 Labor Problems. A comprehensive overview of the relation of labor to the United States economy. Included are the history of labor in the United States; analysis of institutions affecting labor; the theory of wage and employment determination; as well as analyses of unions and collective bargaining, discrimination, unemployment, and the distribution of income. Prerequisite: 215 or consent of instructor. Elective Pass/Fail.
312-3 Collective Bargaining and Dispute Settlement. An analysis of the economic social effects of collective bargaining with an examination of its legal framework in the private and public sectors. Special attention to issues discussed in bargaining and to procedures for settling disputes. Readings and cases. Prerequisite: 310 or consent of instructor. Elective Pass/Fail.
315-3 Money and Banking I. Study of the operation of the money and banking system in the United States. Stresses Federal Reserve control of the money supply and credit conditions to combat inflation and unemployment. Monetary arrangements and problems among nations are also considered. Prerequisite: 214 or consent of instructor. Elective Pass/Fail.
318-3 Economic History of Europe. The economic growth and development of the European economies from the middle ages to the common market. Topics include the rise of the market system, the development of capitalism and the systematic growth of European economic integration. Prerequisite: 214 or GSB 311 or consent of instructor. Elective Pass/Fail.
320-3 Economic History of the United States. The dynamic process of American economic growth and development from its colonial beginnings to its status as world economic power. Particular emphasis is given to the changing role of the United States in the developing world economy and the contribution of changing economic institutions to the character and pace of American economic growth. Prerequisite: 214 or consent of instructor. Elective Pass/Fail.
322-3 Introduction to Economic Development. An analysis of the preconditions, processes, and problems involved in economic development. Both the theory and policy relevant to development, with special emphasis on the developing or emerging economies, are stressed. Prerequisite: 214 and 215 or consent of instructor. Elective Pass/Fail.
323-2 Operation of Public Utilities. (Same as Engineering Technology 323.) The study of public utilities regulation, electrical utility, load factors, rates fixed, and operating costs, power plant economics, and distribution policy. Prerequisite: GSB 211 or consent of instructor. Elective Pass/Fail.
329-3 Introduction to International Economics. Introduction to the principles of international economics. Stresses the relationship between the balance of payments and the United States economy, the determinants of deficits and surpluses, and policy options to correct an imbalance. Prerequisite: 214 and 215 or consent of instructor. Elective Pass/Fail.

330-3 Public Finance. Effects of government spending and taxing activities on the rest of the economy. Analysis of government debt, the federal budgetary process, and various taxes used in the United States. Prerequisite: 215 or consent of instructor. Elective Pass/Fail.

333-3 Economics of the Environment. Factors which lead to physical and human deterioration in a market economy. Consideration of solutions to such problems as urban decay, overpopulation, and pollution. Prerequisite: 214, 215 or consent of instructor. Elective Pass/Fail.

334-3 Health Economics. Factors underlying the demand for and supply of health and medical care services. Included are the market, voluntary nonprofit, and governmental sectors of the industry. Special topics are the regional coordination of hospital facilities and services, the consumer price index and the measurement of benefits and costs of control programs.

340-3 Intermediate Microeconomics. A survey of theories of household, firm, and government economic behavior in the determination of competitive and non-competitive market prices. Emphasis is on understanding the United States economic system and on evaluating existing and proposed government microeconomic policies designed to improve the system. Not open to students who have had Economics 440. Prerequisite: 215 or consent of instructor. Elective Pass/Fail.

341-3 Intermediate Macroeconomics. The determinants of fluctuations in aggregate economic activity, unemployment and inflation. An analysis of the behavior of consumption and investment, the impact of government monetary and fiscal policies, and factors affecting the rate of economic growth. Not open to students who have had Economics 441. Prerequisite: 214 or consent of instructor. Elective Pass/Fail.

361-3 Regional and Urban Economics. A survey of regional and urban economic growth and the associated problems, including disparities among regions in income and employment. Examination of governmental policies aimed at reducing or eliminating such problems as depressed areas and urban blight. Prerequisite: 214 or 215 or consent of instructor. Elective Pass/Fail.

375-3 Economics of Antitrust. An economic analysis of government policies intended to limit and/or control the exercise of private monopoly power. Prerequisite: 215 or consent of instructor. Elective Pass/Fail.

416-3 Money and Banking II. An examination of the principal institutions whose joint actions determine the supply of money in the United States economy. Emphasis is placed on the commercial bank operating as a firm within the Federal Reserve System. Policy issues are examined for the regulation of the banking industry as well as for the control of the domestic money supply. Prerequisite: 315 or 340 or 341 or consent of instructor. Elective Pass/Fail.

419-3 Latin American Economic Development. Special attention to contemporary policy issues and alternative strategies for development. Among the topics included are inflation and financial reform, international trade and economic integration, foreign investment, and agrarian reform. Prerequisite: 322 or 340 or 341 or consent of instructor. Elective Pass/Fail.

420-3 The History of American Growth in the 20th Century. An analytical survey of American growth in the present century. Concentrates on problems associated with the United States' role as a world economic power and changes in economic institutions engendered by rapid technological change and the need to cope with such problems as income distribution, equity, the growing public sector, inflation, unemployment, and others. Prerequisite: 340 or 341 or consent of instructor. Elective Pass/Fail.

425-4 Economics in Geography and Planning. (Same as Geography 422.) Concepts, symbols, language, theory, elementary mathematics of economics, and geography. Individual's preferences, production functions, the firm, markets optimality, externalities, and welfare economics. Elementary mathematics of time and intertemporal criteria. Prerequisite: Geography 300 or consent of instructor. Elective Pass/Fail.

429-3 International Trade and Finance. Analysis of the pattern and volume of world trade and capital flows; effects of trade and payments on the domestic economy; problems and methods of adjusting to change in the balance of payments. Prerequisite: 340 and 341 or consent of instructor. Elective Pass/Fail.

431-3 Public Finance II. State and local. Analysis of the economic effects, problems, and alternative solutions concerning state and local government expenditures, revenues, and debt. Prerequisite: 330 or 340 or 341 or consent of instructor. Elective Pass/Fail.

436-3 Government and Labor. (Same as Political Science 428.) Influence of government and law on collective bargaining, on the internal operation of unions, and on job discrimination in the public and private sectors. Prerequisite: GSB 211 and 212 or equivalents or consent of instructor. Elective Pass/Fail.

440-3 Price, Output, and Allocation Theories. A systematic survey of theories of product prices, wage rates, rates of production and resource utilization under conditions of competition, monopolistic competition, oligopoly and monopoly markets. Emphasis is on developing analytical tools useful in the social sciences. Not open to students who have had Economics 340. Prerequisite: 215 or consent of instructor. Elective Pass/Fail.

441-3 Conptemporary Macroeconomic Theory. An examination in the causes of inflation, unemployment, and fluctuations in aggregate economic activity, factors affecting consumption and investment, and the sources of economic growth. Emphasis is on understanding contemporary United States macroeconomic problems and the options for fiscal, monetary, and incomes policies facing the United States government. Not open to students who have had 341. Prerequisite: 214 or consent of instructor. Elective Pass/Fail.
442-3 Monopoly and Competition in the Industrial State. A survey of economic theories and empirical studies on the nature and consequences of business rivalry in imperfectly competitive markets. Prerequisite: 340 or 440 or consent of instructor. Elective Pass/Fail.
443-3 Honors Seminar in Economics. Application of the tools of economic analysis to the study of contemporary social problems. Enrollment limited to economics majors who have a minimum cumulative grade point average of 3.0 or higher in all prior economics courses. Economics graduate students are not permitted to enroll in this course. Prerequisite: 340 and 341.
450-3 History of Economic Thought. An analytical study of the development of economic ideas, with special reference to historical and societal context, central thrust, and impact. Such benchmark figures as Smith, Marx, Marshall, Veblen, and Keynes are highlighted and major schools of economic thought are identified. Prerequisite: 214 and 215; or GSB 211; or consent of instructor. Elective Pass/Fail.
465-3 Mathematical Economics I. A systematic survey of mathematical economics. Application of basic mathematical tools to economic analysis, and a restatement of economic theory in mathematical terms. Prerequisite: 340 or 440, and Mathematics 117 or 140, or consent of instructor. Elective Pass/Fail.
467-3 Introduction to Econometrics. Introduction to the use of statistical inference and distribution theory for measuring and testing economic theory. Emphasis placed on the linear model, least square estimation, hypothesis testing, and the underlying assumptions. Prerequisite: 308 or consent of instructor. Elective Pass/Fail.
471-3 Land Resource Economics. (See Agribusiness Economics 440.) Elective Pass/Fail.
479-3 Problems in Business and Economics. (Same as Administrative Sciences 479.) Application of economic theory and tools of analysis to practical business problems. Cost and demand functions, and forecasting are analyzed from a policy standpoint. Prerequisite: 215; 308 or Administrative Sciences 208; Marketing 304. Elective Pass/Fail.
481-3 Comparative Economic Systems. Capitalism, socialism, communism, and other forms of social organization are examined from a theoretical point of view. Economic and social theories from Adam Smith and Karl Marx to Milton Friedman and Paul Sweezy will be examined. Prerequisite: 340 or 440 or consent of instructor. Elective Pass/Fail.
490-3 Workshop in Economic Education. (Same as Secondary Education 490.) Designed to assist elementary and secondary school teachers in promoting economic understanding in the minds of their students through the translation of economic principles and problems into classroom teaching materials. Elective Pass/Fail.
500-3 to 24 (3 per topic) Economics Seminar.
501-1 to 21 Economics Readings.
502-1 to 4 Readings in Resource Economics.
507-1 to 4 (1, 1, 1, 1) Practicum in Undergraduate Teaching.
510-2 Research in Economics: Design, Methodology, and Presentation.
512-3 Seminar in Labor Institutions.
517-3 Monetary Theory and Policy.
518-3 Monetary Theory and Policy II.
520-6 (3, 3) Economic Development Theory and Policy.
522-3 Microeconomic Foundations of Labor Markets.
525-4 Seminar in Economics in Geography and Planning.
530-3 Foreign Trade.
531-3 International Finance.
532-3 Economics of Human Resources.
533-3 Public Finance Theory and Practice.
534-3 Economics of Taxation.
540A-3 Microeconomic Theory I.
540B-3 Microeconomic Theory II.
540C-3 Microeconomic Theory III.
541-6 (3, 3) Macroeconomic Theory I and II.
545-3 Energy Economics.
546-3 Workshop in Energy Economics.
552-3 Seminar in Economic Thought.
555-3 Seminar in Economic History.
562-3 Seminar in Economic Systems.
565-3 Applied Econometric Analysis.
566-3 Mathematical Economics II.
567-6 (3, 3) Econometrics I and II.
570-3 Seminar in Contemporary Microeconomic Theory.

571-3 Seminar in Contemporary Macroeconomic Theory.
583-3 Methodological Foundations of Economics.
585-3 Seminar in Social Economy.
590-1 to 8 (1 per semester) Seminar in Contemporary Economics.
599-1 to 6 Thesis.
600-1 to 36 (1 to 16 per semester) Doctoral Dissertation.
601-1 to 12 per semester Continuing Research.

Education (Courses)

Courses

200-1 to 10 Experimental Education. Offered for purposes of testing new and experimental courses and series of courses within the College of Education. Prerequisite: consent of instructor.
201-1 The Teacher's Role in Public School Education. Designed to assist students in confirming their thinking concerning the desirability of pursuing a career in teaching. A requirement in the Professional Education Sequence, this course is available at the freshman level and is prerequisite to admission to the Teacher Education Program. Two-day long observation field trips to elementary and secondary schools are required during the semester in which 201 is completed. Mandatory Pass/Fail.
300-1 to 10 Experimental Education. Offered for purposes of testing new and experimental courses and series of courses within the College of Education. Prerequisite: consent of instructor.
301-2 Human Growth, Development, and Learning. A requirement in the Professional Education Sequence. Deals with factors involved in the teaching-learning process including: cognitive development, socio-personal characteristics, socio-cultural characteristics, motivation for learning, and principles of school learning. Two hours lecture; one hour laboratory. Prerequisite: GSB 202 or equivalent, admission to the Teacher Education Program.
302-2 Basic Techniques and Procedures in Instruction. A requirement in the Professional Education Sequence. Techniques and procedures applicable to effective teaching including the topics: planning for instruction, strategies for instruction, assessment and evaluation, and classroom management. During the semester when enrolled in 302, each student is required to spend one-half day per week doing observation and participation activities in public schools or other appropriate settings. Prerequisite: admission to the Teacher Education Program.
303-2 School and Society: Historical, Sociological, and Philosophical Perspectives. A requirement in the Professional Education Sequence. Fulfills the minimum State Certification requirement in the history and/or philosophy of education. Assists students in developing and understanding of the organization, function, and role of schools in the United States. Prerequisite: admission to the Teacher Education Program.
304-2 to 16 (2, 2, 2, 2, 2, 2, 2, 2) Individualization in Professional Education. A series of courses dealing with various aspects of professional education. One course must be selected as part of the Professional Education Sequence requirement. **(a)** Educational media. Selection and utilization of audiovisual materials in the learning environment, elementary through secondary level. Audiovisual machine laboratory is required. **(b)** Career Education. Principles and practices of career education K-adult. Classroom study and field experiences. Understanding administration and curricular organizations at various levels and in various agencies. Field trip fee $10.00 **(c)** Evaluation in the Classroom. Construction and use of evaluation instruments intended to assess learning especially in the public school settings. **(d)** Teaching in the Middle and Junior High School. The role of the middle and junior high school in the present school structure. A focus on the curriculum, learning, and instruction patterns unique to this area. **(e)** Teaching the Special Needs Learner. Emphasizes an understanding of special needs learners (e.g., educationally disadvantaged youth) and the development of strategies which are effective in teaching them. **(f)** Teaching and Affective Education. The affective domain of educational objectives. Emphasis given to a theory of values and strategies for the clarification of values; the process of valuing as an operation of teaching. **(g)** Discipline and Classroom Management. Techniques and procedures intended to provide teachers with skills for managing groups of students. Content includes group dynamics and leadership skills. **(h)** Extra-Curricular Activities in the Junior High and Senior High School. An overview of the extra-curricular activity program in secondary schools, focusing on the various types of activities, the role of the teacher as sponsor, adviser or coach, and the function of the activity program as a part of the total curriculum of the school. Prerequisite: admission to the Teacher Education Program.
312-1 to 8 Field Observation and Participation. Allows the pre-service teacher education student to observe and participate in activities and experiences relating to the offerings of

their major department. These experiences will be correlated with the offerings of the student's major department, and the experiences will be designed to meet the needs of the individual student. Enrollment in this course will be coordinated by the student's major department. Placement in public school settings will be coordinated by the Office of Professional Education Experiences. Prerequisite: 301, 302, 303, or concurrent enrollment.
350-3 Seminars in Professional Education. A requirement in the Professional Education Sequence. Concentrates on situations, events, and issues that frequently arise in public school work. Prerequisite: admission to the Teacher Education Program, acceptance for student teaching, and concurrent enrollment in 400 and 401. Mandatory Pass/Fail.
400-4 Student Teaching. A requirement in the undergraduate Professional Education Sequence, 400 represents preliminary student teaching experiences necessary for certification entitlement. Enrollment in this course must be arranged through the Office of Professional Education Experiences. For undergraduate credit only. Students majoring in special education and seeking entitlement to more than one teaching certificate in the State of Illinois may in certain instances be allowed credit for up to 8 semester hours of Education 400. Such increase in hours shall be contingent on the student enrolling in 4 hours of Education 400 in each of two semesters, and shall require the written permission of the coordinator of professional education experiences. Prerequisite: admission to the Teacher Education Program, acceptance for student teaching, and concurrent enrollment in 350 and 401.
401-8 Student Teaching. A requirement in the undergraduate Professional Education Sequence, 401 concludes the student teaching experience necessary for certification entitlement. Enrollment in this course must be arranged through the Office of Professional Education Experiences. For undergraduate credit only. Prerequisite: admission to the Teacher Education Program, acceptance for student teaching, and concurrent enrollment in 350 and 400.
450-1 to 10 Experimental Education. Offered for purposes of testing new and experimental courses and series of courses within the College of Education. Prerequisite: consent of instructor.
550-1 to 10 Experimental Education.
590-4 Doctoral Seminar in Cultural Foundations of Education.
591-4 Doctoral Seminar in Behavioral Foundations of Education.

Educational Leadership

(Department, Major [Graduate only], Courses)

The Department of Educational Leadership does not offer an undergraduate major but offers courses for undergraduate credit over a broad range of subject matter in cultural and legal foundations of education.

Courses

354-3 Philosophy of Education. (Same as Philosophy 355.) Intended primarily for those interested in education as a profession. Schools of philosophy are reviewed as they relate to education, and students are encouraged to develop and apply philosophic thought to the practices and problems of education.
360-3 Subcultures in American Education. Poverty, racial prejudice, and various subcultural issues as may relate to American educational development. Analysis of conflicting systems of cultural values and norms and their implications.
421-3 The Law, The Teacher, and The Student. Legislative and case law including civil rights and responsibilities for the teacher and for the student.
430-3 History of Education in the United States. An historical study of the problems of American education.
432-3 Education and Social Forces. A study of the social forces that shape educational policies in the United States.
454-3 Contrasting Philosophies of Education. An examination of current educational problems and trends in the light of contrasting philosophies of education.
455-3 Introduction to Adult and Continuing Education. Introduces the multifaceted areas of adult and continuing education in traditional and non-traditional settings by reviewing and studying philosophies, directions, program efforts, and activities associated with them.
465-3 Organization and Administration of Adult and Community Education Programs. Review of methods and procedures for working with various types of adult programs and populations, for administering adult curricula programs and staff for using area and state social services, and for program funding are the primary emphases of this course.

475-3 Administration of Staff Development Programs in Adult and Continuing Education. Review and examination of the needs, problems, administrative requirement, and alternatives available for staff development in adult and continuing education. Emphasis will be placed on needs assessments, planning, and designing inservice or staff development programs to meet institutional needs and individual professional needs.
485-9 (3, 3, 3) Workshop in Adult and Continuing Education. The foci for these workshops are to provide quality educational experiences for students and practitioners in the field of adult and continuing education in three major areas: (a) the adult learner, (b) improvement of instruction and programs in adult education, and (c) evaluation in adult education.
500-3 Educational Research Methods.
501-3 Educational Administration: Tasks and Processes.
503-3 Educational Administration: Introduction to Theory.
505-2 Organization and Administration of the Middle and Junior High School.
507-3 Secondary School Principalship.
509-3 School-Community Relations and Development.
510-3 Foundations of Adult Education.
511-3 Organization and Administration of Curriculum.
513-3 Supervision of Instruction.
515-1 to 12 Current Issues in Educational Administration.
517-3 The Legal Framework of Education.
519-3 Illinois School Law.
521-3 School Facilities.
523-3 Systems Analysis: An Application to Education.
525-3 School Finance Theory.
527-3 School Business Administration.
529-3 Supervision of Personnel: Problems.
530-3 Historical Research in Education.
531-3 School Boards and Policies.
533-3 Elementary School Principalship.
539-3 Evaluation and Accreditation in Schools.
541-3 Personnel Evaluation.
551-3 Educational Leadership: Politics of Education.
552-3 Seminar in Comparative Education.
553-3 Educational Leadership: Systems and Accountability.
554-3 Seminar in Philosophy of Education.
555-3 Advanced Educational Administration Theory.
556-3 Seminar in History of European Education.
558-3 to 9 (3, 3, 3) Advanced Seminar in Comparative Education.
559-3 Interdisciplinary Seminar in Educational Administration: I.
560-3 Education and Culture.
561-3 Interdisciplinary Seminar in Educational Administration: II.
562-3 Education and the American Way of Life.
564-3 Education and the Challenges of the Twentieth Century.
565-3 Continuing Education and Extension Services.
575-3 Seminar in Adult and Continuing Education.
588-3 to 9 General Graduate Seminar.
590-1 to 6 Readings.
593-1 to 3 per topic Individual Research.
595-1 to 8 Internship.
596-1 to 6 Independent Investigation.
597-1 to 8 Externship.
599-1 to 6 Thesis.
600-1 to 36 (1 to 16 per semester) Dissertation.
601-1 to 12 per semester Continuing Research.

Educational Media

(SEE CURRICULUM, INSTRUCTION, AND MEDIA)

Electrical Sciences and Systems Engineering

(SEE ENGINEERING)

Electronic Data Processing (Program, Major, Courses)

The growth of electronic data processing in both the expansion of installations and in the complexity of hardware and software has increased the need for competent computer programmers and systems analysts. The need for persons trained only on unit record equipment, however, is decreasing.

The curriculum in electronic data processing at the School of Technical Careers prepares students for employment as business computer programmers and systems analysts. Skills which the graduate obtains include competency in programming languages (such as COBOL, Assembler, and RPG) and associated areas such as accounting and systems design and development.

An outstanding feature of the program at the School of Technical Careers is the availability of an IBM 370 computer system for batch and interactive use. The hardware and software configuration is representative of large computer installations in industry. The data center is accessible for approximately 100 hours per week.

The student should plan to spend small amounts for special laboratory materials.

An advisory committee of professional people and educators helps to keep the program responsive to needs in the field. Current members are: Ellis T. Bick, division data systems manager, Southwestern Bell Telephone Company, St. Louis, Mo.; Edward Long, data processing manager, City of Carbondale; John Crawford, vice president, Horace Mann, Springfield; and Thomas Purcell, institutional research, Southern Illinois University at Carbondale.

This associate degree program can be completed in two academic years at Southern Illinois University at Carbondale or in combination with community college or other acceptable extra-institutional educational experiences.

Associate in Applied Science Degree, School of Technical Careers

Requirements for Major in Electronic Data Processing

GSD 101, 152	5
Accounting 110, 120	6
GSB 202	3
School of Technical Careers 102 or GSD 118	2
Electronic Data Processing 101, 102, 103, 104, 110, 135, 201, 203, 204, 205, 206, 207, 240, 241 each with a grade of C or better	46
Approved Electives	6
Total	68

Courses

101-3 Introduction to Data Processing. The successful student should be able to demonstrate an understanding of basic terminology, procedures, applications, and equipment used in data processing, and be able to compare manual, punched card, and computer methods of processing. Lecture three hours.

102-3 Introduction to Programming. The successful student should be able to flowchart logical solutions to and write programs for business data processing problems. The student should also understand the general approaches to totaling, sub-totaling, table processing, and file updating. Lecture three per week.

103-3 COBOL Programming I. The successful student will solve a variety of simple problems using card and printer files. Lecture three per week. Prerequisite: 101.

104-3 Data Processing Applications. The successful student will demonstrate by examination a general knowledge of processing procedures and terminology for basic business applications such as billing, accounts receivable, accounts payable, inventory control and payroll. Lecture three hours. Prerequisite: 101.

107-3 Electronic Data Processing Concepts. Designed as a concepts course for non-data processing majors. Each student will learn the basic operations and functions of data pro-

cessing equipment, be able to flow chart logical solutions, write a program for a simple data processing problem, describe the use of several different programming languages, and discuss the impact of computers on our socio-economic system. Averages two lecture and three laboratory hours per week. Elective Pass/Fail.

109-2 Punched Card Preparation. Designed as a skill course for non-data processing majors. Each student will learn the basic operation and function of IBM unit record machines, memorize the keyboard and design program cards for the IBM 26 and 29 model key punches. Most of the laboratory time will be spent in improving speed and accuracy of alphameric punching. Averages one lecture and three laboratory hours per week. Prerequisite: typing skills.

110-3 Introduction to Business and Data Processing Careers. Upon the completion of this course of study, the student should be able to describe the foundations and responsibilities of business; management of the business firm; human factors in management; financing the business firm; quantitative aids of the business manager; marketing and distribution; legal government, and social environment; the world of computers and data processing; and data processing career opportunities. Lecture three per week. Prerequisite: major in electronic data processing or consent of department.

135-3 Data Processing Mathematics. Upon completion of this course of study, the student should be able to successfully work problems involving decimal numbers; other number bases; basic algebra; equations; functions; nonlinear functions; simultaneous systems of equations; matrices; linear programming; series; numerical methods; Boolean algebra; logic; sets; and hexadecimal-decimal conversion, and basic business statistics. Lecture three per week. Prerequisite: high school algebra.

201-4 Assembler Language Programming. The successful student should be able to demonstrate a working knowledge of Assembler Language by coding and running programs using card/disk/printer input-output, the decimal instruction set, table processing using indexing and internal subroutines. Lecture four per week. Prerequisite: 102 or equivalent.

202-3 FORTRAN IV Programming. The successful student will demonstrate a working knowledge of the FORTRAN IV programming language by flow charting, coding, compiling and testing a variety of mathematical and statistical problems. Lecture two hours. Laboratory three hours. Prerequisite: Mathematics 111 or consent of instructor.

203-3 Job Control Language and Utilities. The successful student should have an understanding of the role of a computer operating system, and should be able to demonstrate a working knowledge of both JCL and utility programs by coding the JCL and utility control statements necessary for activities such as creating, copying, and sorting files. Lecture three hours. Prerequisite: experience with a batch processing system.

204-3 COBOL Programming II. The successful student will solve complex problems using disk files and advanced COBOL features. Lecture three per week. Prerequisite: 103 or equivalent.

205-2 to 3 Systems Design and Development. The successful student will demonstrate in class discussion, on examinations and by preparing a case study, an ability to design an effective business information processing system including the system flow chart, system specifications, feasibility, the implementation procedure and essential documentation. Lecture three hours. Prerequisite: 104.

206-3 RPG Programming. The student should be able to prepare a variety of reports from several established card and disk data files. Primary emphasis is placed upon using the Report Program Generator programming language. RPG II using the disk operating system is stressed. Averages three lectures per week. Prerequisite: 101.

207-6 Data Processing Project. Designed to provide the student with a data processing problem which is beyond the scope of any single course. Prerequisite: consent of department.

208-8 (4, 4) Numerical Control Programming. The student will be able to **(a)** operate basic data processing machines; plan, code, test and debug an elementary FORTRAN IV program; plan, code, test and prove an elementary AD-APT part program, and **(b)** describe the environment in which the AD-APT system resides and become proficient in using the AD-APT part programming language. Lecture two hours. Laboratory three hours. Prerequisite: Tool and Manufacturing Technology 210.

209-1 to 8 Data Processing Internship. Designed to provide the students with meaningful practical experience. Involves study, observation, and participation in a data processing installation. Hours and credit arranged individually. May be repeated for credit up to eight hours total. Prerequisite: consent of department. Mandatory Pass/Fail.

217-3 Computing for Business Administration. Designed for business oriented students who need to know how computer systems may be used as management tools. Topics include: types of hardware and software, information systems design and management, and an introduction to FORTRAN programming. A successful student will be able to write programs in FORTRAN to analyze management information. Lecture three hours. Prerequisite: completion of the General Studies mathematics requirement or equivalent.

235-2 Business Statistics. The student will present data in tabular form and draw graphic representations of data; compute measures of central tendency and solve problems dealing with measures of dispersion and skewness; do basic probability computation; deal with sampling distributions; and solve problems dealing with regression and correlation analysis. Lecture two hours. Prerequisite: Accounting 110 or consent of instructor.
240-3 Database Processing. Database concepts, design, languages, implementation, and administration. Students will write, compile, and execute COBOL programs to retrieve, update, and create database records. Lecture three hours. Prerequisite: 204B or consent of department.
241-3 Data Communications. The successful student will acquire a working knowledge of the terminology and concepts of data transmission. Lecture three per week. Prerequisite: 240 or consent of department.
260-3 Introduction to Text Processing. (Same as Secretarial and Office Specialties 260) Each student will learn the basic operations and functions of representative work procesing machines and terminals. The laboratory time will be spent in improving speed and accuracy in the typing of textual materials. Lecture two hours, laboratory three hours. Prerequisite: typing skills.

Electronics Technology (Program, Major, Courses)

The goal of the electronics technology program is to educate electronics technicians capable of taking their places in industry in both indirect and direct support to the electronics engineer. Experiences in meter measurements and troubleshooting are provided with manuals and specifications to allow the indirect supporting technician to work for a senior technician. More than an hour each day is spent descriptively and mathematically presenting the general theory principles of electronics. This theory is then applied in a two-hour laboratory each day to design, breadboard, and evaluate circuitry to not only reinforce the theory knowledge but to prepare the direct supporting technician for work later directly for an engineer. During the early stages of the program, most instruction is directed toward basic principles of electricity and electronics. This instruction is followed by principles related to study of communication systems, digital circuits, instrumentation, and control system.

The persons who make the best electronics technicians are those who are interested in physics and mathematics, who have a desire to learn how complex equipment functions and are careful of small details, and who enjoy seeking out and solving problems.

The purchase of a set of specified hand tools, costing approximately $150, is mandatory for students enrolled in the program. A list of the specific hand tools and supplies required will be sent upon request.

An advisory committee drawn from among professionals active in the industry helps to assure that students get a course of study that will prepare them for existing and developing conditions in the field. Current members are: Richard W. Burritt, education and training, Caterpillar Tractor Company, East Peoria; Gene Harrison, Phelps Dodge, DuQuion; Howard Schlechte, IBM field engineering, St. Louis, Mo.

Opportunities exist throughout industry for technicians, and students are limited only by their own talent and motivation. Job pay is directly commensurate with the technician's ability, resourcefulness, and initiative.

Students who have an excellent background in AC-DC theory are especially suited for an accelerated program. Students who have extensive studies in electronics in high school vocational courses and at area vocational centers are encouraged to enter an accelerated program which shortens the time required to earn the associate degree at the School of Technical Careers. The electronics technology faculty has developed a formalized program of proficiency testing which allows these students to:

1. Gain credit in first semester courses through testing.

2. Take second semester major courses during the eight-week summer session.
3. Begin third semester, or sophomore, courses in the fall semester of what would normally be their freshman year at college.

This associate degree program can be completed in two academic years at Southern Illinois University at Carbondale or in combination with community college or other acceptable extra-institutional educational experience.

Associate in Applied Science Degree, School of Technical Careers

Requirements for Major in Electronics Technology

GSD 101, 153	6
School of Technical Careers 102 or GSD 118, 105a,b, 107a,b	10
Electronics Technology 101, 102, 111, 112, 121, 122 or 223, 201, 202, 211, 212, 221	53
Computer Science 202 or 222 or Electronics Data Processing 107 or 217	3
Total	72

Courses

101-5 DC-AC Circuit Analysis. The laws and theory principles of DC-AC passive circuits are presented in a comprehensive manner using descriptive, mathematical, and verbal analytical approach. Prerequisite: concurrent enrollment in School of Technical Careers 105a,b and electronics technology major or consent of program supervisor.

102-5 Electronics Circuit Theory. The operation of active devices with their passive components are descriptively, verbally, and mathematically presented in circuits such as simplifiers, oscillators, op amps, and other IC systems. Prerequisite: 101 and electronics technology major or consent of program supervisor.

111-6 DC-AC Circuit Analysis Laboratory. Application of the theory studies in 101 on passive circuits is made under experimental conditions. Laboratory ten hours. Prerequisite: concurrent enrollment in 101.

112-6 Electronics Circuits Laboratory. Application of the theory studies in 102 on electronic circuits is made under experimental conditions. Laboratory ten hours. Prerequisite: 111, and concurrent enrollment in 102.

121-3 Electronic Devices. The focus is placed on electronic devices, their construction, operational characteristics, and application in a single functional block according to manufacturer specifications. Lecture three hours. Prerequisite: concurrent enrollment in 111.

122-3 Communications Fundamentals. Communications systems, components, propagation, and coupling, and other transmission modes are covered as applied to communications. Prerequisite: 101.

201-1 to 5 Telemetry and Industrial Circuits Theory. The theory principles are covered on circuitry employed in the measurement, transmission, resolution, and development of data required for operation in industrial and commercial applications. Lecture five hours. Hours and credit to be individually arranged. Prerequisite: 102 and consent of instructor.

202-1 to 5 Digital Circuits Theory. Concepts of the circuits used to make up such systems as numeric controls, computers, and communications networks. Lecture five hours. Hours and credit to be individually arranged. Prerequisite: 102 and consent of instructor.

211-6 Telemetry and Industrial Circuits Laboratory. Application of the theory studied in 201. It develops skills in design, testing, and troubleshooting transducers, telemetry equipment, and industrial circuits. Laboratory ten hours. Prerequisite: concurrent enrollment in 201 or consent of instructor.

212-1 to 6 Digital Circuits Laboratory. The laboratory provides organized investigation of individual circuits and subsystems that are employed in a variety of major systems in industry and commerce. Laboratory ten hours. Hours and credit to be individually arranged. Prerequisite: 102 and consent of instructor.

221-3 Electronic Systems Analysis. Extends the basic analysis skills developed in the prerequisite course to the analysis of typical modern electronic systems and subsystems. Lecture three hours. Prerequisite: 102 or consent of instructor.

223-3 Federal Communications Commission Test Preparation. Programmed instruction designed to prepare a student for the test for the second class FCC radio-telephone license. Individualized instruction three hours. Prerequisite: 102 and electronics technology major or consent of program supervisor.

224-3 Computer Systems Application. Analysis of the computer's operational blocks, machine language programming, and troubleshooting are done on the Digiac 3060 computer. Lecture three hours. Prerequisite: 201 and concurrent enrollment in 202.

250-2 Controls, Motors, and Generators. Upon completion of this course students will be able to choose the proper contactors and fuses for a given job. They will be able to read meters and apply Ohm's law to the DC motor-generator, series, parallel and combination circuits with the proper wire sizes. This course is designed for non-majors and is learner paced. Elective Pass/Fail.

251-3 Advanced Solid State Devices. Knowledge of diodes, transistors, silicon controlled rectifiers, triacs, diacs, tunnel diodes, and integrated circuits will be discussed in detail. Specific emphasis will be given to the theory of linear integrated circuits and the operational amplifier and its application in instrumentation. This course is learner paced. Prerequisite: 250. Elective Pass/Fail.

252-2 Amplifiers, Power Supplies, and Transducers. Upon completion of this course, students will be able to measure an amplifier's gain, frequency response, input and output impedance. They will be able to measure a power supply's efficiency, ripple and regulation and properly apply a new power supply to a given load. They will be able to analyze an amplifier to properly apply input transducers (microphones, phonopickups, etc.) and output transducers (speakers, meters, etc.) This course is designed for non-majors and is learner paced. Prerequisite: 251. Elective Pass/Fail.

301-1 to 5 Introduction to Electronic Biomedical Instrumentation. Designed to develop an understanding of the fundamentals of electronic circuits employed in biomedical instrumentation of the following purposes: cardiovascular measurements, patient care and monitoring, measurements in the respiratory system, measurement of physical variables, sensory measurements for the study of behavior, biotelemetry, instrumentation for the clinical laboratory, X-ray and radioisotope instrumentation, and particularly electrical safety for medical equipment. Lecture five hours. Hours and credit to be individually arranged. Prerequisite: consent of instructor.

302-4 Optical Electronics. The student will be required to identify the basic principles of light physics as they relate to laser and fiber optic theory. Integration of electronic control, measuring, and sensing devices will be accomplished within an industrial and communication framework. A systems approach will be utilized involving laser, fiber optic, and electronic discrete and integrated components. It is an applied course intended as a post-associate offering primarily for students in electronics technology providing exposure to the technical aspects of an important emerging area of electronics. Lecture four hours. Prerequisite: 102.

303-5 Microcomputer Construction and Troubleshooting. Upon successful completion of this course, the student will be able to construct a microprocessor based system and make it operational, generate software or use software techniques which would be used in software/hardware troubleshooting, use equipment and techniques which would be used in efficient microprocessor system troubleshooting, and use the equipment or techniques learned to troubleshoot a microprocessor based system.

311-1 to 6 Electronic Biomedical Instrumentation Laboratory. The laboratory is designed to provide hands-on experience with the equipment currently available for use in biomedical instrumentation. The equipment is selected from the major supplies and will be utilized to teach interfacing and applications. The equipment will encompass sensors, transducers, amplifiers, oscillators, display and recording devices. Complete systems approach will be taught in conjunction with the medical school laboratories on existing equipment. Laboratory ten hours. Hours and credit to be individually arranged. Prerequisite: consent of instructor.

312-2 Optical Electronics Laboratory. The student will perform selected experiments in electronics, lasers, fiber optics, and light physics. Emphasis will be placed on the integration of laser and fiber optic principles with electronics. Laboratory three hours. Prerequisite: 102 and concurrent enrollment in 302.

313-6 Microcomputer Construction and Troubleshooting Laboratory. This laboratory is designed to reinforce the concepts of microcomputer operation, troubleshooting, programming, and interfacing through actual practice. Ten hours laboratory. Prerequisite: concurrent enrollment in 303.

Elementary Education

(SEE CURRICULUM, INSTRUCTION, AND MEDIA)

Engineering (Major, Courses)

Engineering is the profession in which a knowledge of the mathematical and natural sciences gained by study, experience, and practice is applied with judg-

ment to develop ways to utilize economically the materials and forces of nature for the benefit of people.

The four-year undergraduate program leading to the Bachelor of Science degree in engineering is a modern, flexible curriculum consisting of a common core and an elective option. The common core consists of courses in basic sciences, mathematics, engineering science, and engineering design. Sometime before the senior year, the student selects the option which contains required and elective courses in an area of interest. The options are:

Electrical Sciences and Systems Engineering (ESSE)
Engineering Mechanics and Materials (EMM)
Thermal and Environmental Engineering (TEE)
Mining Engineering (MNGE)

The first three options (ESSE, EMM, TEE) are fully accredited by the Accreditation Board for Engineering and Technology, Inc. (ABET), the recognized agency for accrediting engineering curricula in the United States. The Mining Engineering option has just been introduced and will be due for accreditation review during a future ABET inspection. Graduating seniors with a specialization in ESSE, EMM or TEE are eligible to take the Engineer-In-Training (EIT) examination as a first step toward registration as a Professional Engineer (PE).

Judicious selection of elective courses allows the student to prepare for a variety of areas (see individual curricula) identified with the traditional engineering disciplines (electrical, mechanical, civil, mining, etc.) and other areas that transcend the traditional disciplines. The aim of this flexibility is to provide society with graduates who can cope with a variety of engineering activities such as design, development, testing, consulting, and applied research. These activities may be directed toward the solution of contemporary problems varying from design of devices to problems of an interdisciplinary or complex-systems nature.

Students enrolled in community colleges who plan to transfer to Southern Illinois University at Carbondale should take courses that provide backgrounds in mathematics, physical sciences, social sciences, and humanities. They may transfer at any time, but there are advantages in having completed a baccalaureate-oriented associate-degree program. Community college students can complete specific Southern Illinois University at Carbondale course requirements which include 5 hours of English composition and speech, 8 hours of university physics, 7 hours of chemistry, 11 to 14 hours of mathematics (including calculus), 5 hours of statics and dynamics, and 16 hours of social sciences and humanities. Calculus and analytical mechanics are prerequisites for most junior-level engineering courses.

Students with bachelor of science degrees in engineering can specialize further at the graduate level.

Courses

Safety glasses, an electronic calculator or a slide rule with log-log scales, and textbooks are required for all engineering students.

100-3 Introduction to Engineering. Introduction to the exciting and challenging experience of engineering. Methods and procedures utilized by the engineer for problem solving are discussed. Each student will be involved in an authentic engineering design project. A graphics and computational tools laboratory will be part of the course.

222-2 Computational Methods for Engineers and Technologists. Introduces the student to the use of digital computers and programmable calculators in the solution of technical problems. A problem-oriented computer language is used to solve relevant problems that are specifically designed for the engineering and technology student. Problem analysis, flow charting, coding, diagnostics, execution, and solution verification are discussed. Prerequisite: Mathematics 111.

225-3 Introduction to Digital Systems. Number systems, Boolean algebra, combinational circuits, minimization, sequential circuits, logic devices, and computer basics. Prerequisite: Mathematics 111.

260-5 (2, 3) Mechanics of Rigid Bodies. (a) Principles of statics; force systems; equilibrium of particles and rigid bodies; trusses, frames and machines, centroids; friction; moments of inertia of areas. Prerequisite: Mathematics 150. (b) Principles of dynamics; mass moment of inertia; kinematics and kinetics of particles and rigid bodies; vibrations. Prerequisite: 260a or equivalent.

300-3 Engineering Thermodynamics I. Study of the basic principles of thermodynamics. Engineering analysis of physical systems based on the first and second laws. Properties of pure substance (ideal gas behavior, non-ideal gas behavior, and equations of state.) Mixtures of ideal gases. Introduction to cycle analysis. Prerequisite: Chemistry 224 or equivalent and Physics 205a. Physics prerequisite waived with consent of instructor.

302-3 Engineering Heat Transfer. An introductory study of the rate mechanisms of thermal energy transport both in steady state and in transient conditions, with and without phase change. Prerequisite: 260a.

311-3 Mechanics of Deformable Bodies. Introduction to the mechanics of deformable bodies. Forces and deformations. Torsion. Stresses in beams. Deflections of beams. Statically indeterminate beams. Columns. Laboratory. Prerequisite: 260a.

312-3 Materials Science Fundamentals. Sub-microscopic structure of solids, including electronic states, atomic and molecular arrangement, structural imperfections and atomic diffusion, and their relationship to macroscopic properties; physical properties of semiconductors, dielectric and magnetic properties of materials; metallic, organic, and ceramic materials and their mechanical properties; composite materials. Prerequisite: Physics 205 and Mathematics 250.

313-3 Fluid Mechanics. A broad introduction to the concepts and principles of fluid statics, kinematics, and dynamics. The fundamental laws for fluid motion in the form of Euler's, Bernoulli's, impulse-momentum and work-energy equations. Dimensional analysis and dynamic similtude. Resistance to flow: deformation drag, surface drag, form drag. Introduction to compressible fluid flow. Laboratory. Prerequisite: 260b or concurrent enrollment.

335-3 Electric Circuits. Foundation course in electric circuits. Basic laws and concepts of linear circuits. Analysis of AC and DC circuits by mesh and nodal methods, Thevenin's and Norton's theorems, superposition principle, and phasor notation. Transients. Prerequisite: Mathematics 250.

345-3 Electronics. Functional electronics and basic signal processing. Characteristics and typical applications of analog and digital electronic modules. Operational amplifiers. Fundamentals of transistors. Use of basic instruments. Lecture and laboratory. Prerequisite: 335.

361-2 Engineering Economics in Design. Procedures for evaluating the relative economic merits of engineering projects and designs. These procedures compare alternate engineering estimates, evaluate engineering effectiveness, and proceed toward decision making based on economic and engineering optimization. Course materials are present in professional engineering examinations. Prerequisite: Mathematics 111 or equivalent.

385-3 Electromechanical Energy Conversion. Principles of electromechanical energy-conversion and related circuitry. Magnetic circuits. Transformers. DC machines. Single-phase and polyphase machines. Polyphase circuits. Prerequisite: 335.

443-4 Engineering Design. Projects of an engineering systems design nature. Students select a problem, define and design the various subsystems, define subsystem interface requirements, integrate the subsystems into the final design and document the design effort. Laboratory. Not for graduate credit in engineering. Prerequisite: senior standing in engineering.

455-3 Engineering Geology. (See Geology 455.)

ELECTRICAL SCIENCES AND SYSTEMS ENGINEERING
(Department, Major [Engineering], Courses)

Students who choose the electrical sciences and systems engineering option prepare themsevles for professional employment or graduate studies in areas associated with electrical or systems engineering. Employment opportunities exist within a wide range of organizations, such as governmental laboratories; consumer-goods manufacturers; and telecommunications, electric-power, computer, and microelectronic companies. Flexibility in this option allows students to choose among courses in applications and theory of circuits, systems, communications, digital systems, controls, electronics, instrumentation, electromagnetics, and power systems.

Bachelor of Science Degree, College of Engineering and Technology

ENGINEERING MAJOR — ELECTRICAL SCIENCES AND SYSTEMS ENGINEERING SPECIALIZATION

General Studies Requirements		29[1]
GSA: Substitute basic sciences		
GSB	9	
GSC	9	
GSD: Substitute mathematics	7	
GSE	4	
Requirements for a Major in Engineering		103
Basic Sciences		18[2]
Physics 205a,b; 255a,b	8	
Chemistry 224 and 225	7	
GSA 110 or 115 or 209, or substitute Geology 220	3	
Mathematics 150, 250, 251, 305 and approved elective-3		17
Engineering		37
General: Engineering 100, 222, 361	7	
Engineering Sciences	26	
Engineering 225, 260a, 300, 302, 335, 345, 385, select two from 260b, 311, 312, 313		
Engineering Design	4	
Engineering 443		
Specialization in Electrical Sciences and Systems Engineering		31
Engineering Sciences	6	
ESSE 455; select one of ESSE 447, 476, 477, or 486		
Engineering Design	14	
ESSE 465; select 11 hours from ESSE 426, 427, 446, 456, 457, and 487		
Approved technical electives	11	
Total		132

[1]Courses required for the major will apply toward 16 hours of General Studies making a total of 45 in that area.
[2]Transfer students holding the associate degree in a baccalaureate-oriented program, and having at least 18 semester hours of basic science approved by the department chairperson or a designate, meet this requirement.

Courses

Safety glasses, a hand-held scientific calculator, and textbooks are required of all electrical sciences and systems engineering students.

421-2 Digital Computers in Applied Physical Research. Comutational techniques for matrix inversion, solution of linear equations, and characteristic roots and vectors. Least squares analysis, curve-fitting, and regression. Numerical quadrature. Solution of nonlinear equations. Solution of regular differential equations and boundary-value problems. Generation of approximate solutions. Monte Carlo techniques. Engineering and other physical examples are used as the primary teaching vehicle. Prerequisite: Engineering 222 and Mathematics 305. Elective Pass/Fail.

426-4 Microcomputer Systems. Application and makeup of microcomputer systems. Microprocessor programming and applications with various interface devices including input/output ports, analog-to-digital and digital-to-analog converters. Lecture, laboratory, and design project. Prerequisite: Engineering 222, 225, and 345 or consent of instructor.

427-3 Digital-Systems Design I. Advanced concepts in combinational and sequential circuit design including system design procedures and register transfer languages. Prerequisite: Engineering 222, 225, and 345 or consent of instructor.

446-4 Electronic Circuit Design. Design techniques for a wide range of electronic circuits. Device and circuit modeling. Computer aided circuit design. Consideration of audio, video, and tuned amplifiers; feedback; oscillators; digital circuits. Design project. Lecture and laboratory. Prerequisite: 455 or concurrent enrollment; Engineering 345.

447-3 Applications of Electronic Devices. Physical mechanisms governing the operation of a wide variety of semiconductor devices. Applications of specific devices are used to il-

lustrate performance characteristics and the relation between device design parameters and terminal properties. Prerequisite: Engineering 222, 312, and 345.
455-3 Linear Systems. Fundamental techniques in analysis of linear systems. Transient analysis of linear electrical networks and analogous systems by classical, Laplacetransform, and computer techniques. Feedback, frequency response, and state variables. Prerequisite: Engineering 335 and Mathematics 305.
456-3 Control Theory. Fundamentals and techniques for analysis and design of systems with feedback. Signal flow graphs. S-plane analysis. Frequency-domain analysis. Root locus. Stability conditions. Compensation techniques. Prerequisite: 455.
457-3 Systems Theory. In-depth study of system concepts such as interaction, anticipation, feedback, feedforward, stability, and memory. Methods which maintain flexibility and generality in dealing with all types of engineering systems. Prerequisite: Mathematics 305 or consent of instructor.
458-3 Communications Theory. Basic information theory. Fourier series and transform. Sampling theory. Amplitude modulation, frequency modulation, and pulse modulation. Signal-to-noise ratio. Statistical methods. Prerequisite: 455.
461-4 Bio-electricity and Biomedical Instrumentation. Interdiciplinary course primarily for life-science students. Electromagnetics relative to living systems. Circuit analysis. Functional electronics. Electric safety. Specific clinical and research instrumentation. Lecture and laboratory.
465-3 Instrumentation. Theory and practice related to measurement systems for research and industry. Instrument characteristics. Techniques in analog and digital instrumentation. Transducers. Signal conditioners. Output and display systems. Statistics of measurement. Design project. Lecture and laboratory. Prerequisite: Engineering 345.
476-3 Electromagnetic Fields I. Electric and magnetic fields using vector analysis. Evolution of Maxwell's equations through the laws of Coulomb, Gauss, Ampere, and Faraday. Concepts of energy and potential. Poisson and Laplace fields. Wave equation and plane waves. Transmission lines. Prerequisite: Mathematics 305.
477-3 Electromagnetic Fields II and Microwaves. Application of Maxwell's equations and the laws of electromagnetics to boundary-value problems, microwave devices, guiding structures, and radiating structures. Poynting's theorem and energy relationships. Lecture and laboratory. Prerequisite: 476.
486-3 Electric Energy Sources. Principles and utilization of nuclear, solar, and fossil-fuel generators. Direct energy converters including thermionic, thermoelectric, and photovoltaic. Prerequisite: Engineering 385 or consent of instructor.
487-4 Power Systems Analysis I. Introduction to analysis of electric power systems. Modeling of power system components. Power system configuration. Control of power and frequency. Control of voltage and reactive power. Load-flow analysis. Introduction to symmetrical components. Prerequisite: Engineering 385.
492-1 to 5 Special Problems in Engineering. Topics and problems selected either by student or instructor. Prerequisite: senior standing and consent of instructor.
527-3 Digital Systems Design II.
536-3 Network Synthesis.
547-3 Solid-State Theory of Electronic Materials.
556-3 Modern Control Theory.
557-6 (3, 3) Complex Systems.
577-4 Electromagnetic Fields III.
580-1 to 4 Seminar.
586-3 Power Systems Analysis II.
592-1 to 5 Special Investigations in Engineering.
599-1 to 6 Thesis.
601-1 to 12 per semester Continuing Research.

ENGINEERING MECHANICS AND MATERIALS (Department, Major [Engineering] Courses)

The engineering mechanics and materials option is designed to help students prepare for a broad professional career in areas of civil and/or mechanical engineering, to specialize in selected areas of engineering mechanics, or to prepare for graduate studies. Course work is offered by the department in experimental analysis, vibrations, machine design, materials science, hydraulics, soils and foundations, structural analysis and design, numerical methods, and supersonic flow. The student, with the help of an adviser, is encouraged to choose a sequence of technical electives to achieve a solid and coherent specialization.

Bachelor of Science Degree, College of Engineering and Technology

ENGINEERING MAJOR — ENGINEERING MECHANICS AND MATERIALS SPECIALIZATION

General Studies Requirements		29[1]
GSA: Substitute basic sciences		
GSB		9
GSC		9
GSD: Substitute mathematics		7
GSE		4
Requirements for a Major in Engineering		103
Basic Sciences		18[2]
Physics 205a,b; 255a,b	8	
Chemistry 224 and 225	7	
GSA 110 or 115 or 209, or substitute Geology 220	3	
Mathematics 150, 250, 251, 305 and approved elective-3		17
Engineering		37
General: Engineering 100, 222, 361	7	
Engineering Sciences	26	
Engineering 260a,b, 300, 302, 311, 312, 313, 335, 345 or 385		
Engineering Design	4	
Engineering 443		
Specialization in Engineering Mechanics and Materials		31
General: EMM 440, 451	6	
Engineering Sciences: EMM 464	2	
Engineering Design: EMM 413, 475	6	
Engineering Science electives	5	
Select at least 5 hours from EMM 414, 419[3], 441[3], 447, 448, 449, 458, 465		
Engineering Design electives	7	
Select at least 7 hours from EMM 409, 419[3], 441[3], 442, 444, 472, TEE 406		
Technical electives in approved areas	5	
Select up to 5 hours of technical electives to be chosen from EMM 462, 470, or other approved courses		
Total		132

[1]Courses required for the major will apply toward 16 hours of General Studies making a total of 45 in that area.
[2]Transfer students holding the associate degree in a baccalaureate-oriented program, and having at least 18 semester hours of basic science approved by the department chairperson or a designate, meet this requirement.
[3]This course may be used for either one semester hour of design credit or two semester hours of engineering science credit or both.

Courses

Safety glasses, a hand-held scientific calculator, and textbooks are required of all engineering mechanics and materials students.

409-3 Hydrology and Hydraulic Engineering Design. Study of the hydrologic cycle. Streamflow analysis. Unit hydrograph. Matrix methods; synthetic methods. Frequency analysis; multivariate distributions. Hydrologic and hydraulic routings. Groundwater hydrology. Application of hydrology to the design of various hydraulic structures: small dams, spillways, drainage systems. Prerequisite: Engineering 313 or equivalent or consent of instructor. Elective Pass/Fail.

413-3 Fluid Systems Design. Two to three week projects involving the identification, modeling, analysis, and design of fluid-engineering systems. Prerequisite: Engineering 313.

414-3 Intermediate Fluid Mechanics. A development of the governing equations of motion including the continuity, Navier-Stokes, and energy equations. Application of these equations to potential, viscous, and compressible flows. Isentropic flow of a perfect gas.

Normal and oblique shock waves, Prandtl-Meyer flow. Prerequisite: Engineering 313 or equivalent.

419-3 Soil Mechanics and Foundation Engineering Design. Study of soil behavior and its application in foundation engineering. Laboratory. Soil-water systems and interactive forces; stress-strain characteristics; effective stress concept; drained and undrained conditions for saturated soils; theory of consolidation. Design of retaining walls, earth dams, shallow and deep foundations. Prerequisite: Engineering 311, 313, or consent of instructor.

440-3 Structures. An introduction to structural engineering. The design procedure. Loads. Types of structures. Structural materials, safety. Social and environmental considerations. Analysis of structures. Influence lines. Deflections. Slope deflection. Moment distribution. Matrix methods. Prerequisite: Engineering 311 or consent of instructor.

441-3 Vibration in the Design of Machines and Structures. Theory: Review of second order ordinary linear differential equations. Matrices and determinants. Phasor and trigonometric solutions, Duhamel integrals, Fourier Series. Applications: motor and equipment mounts, deflection of rotating shafts, resonance, dynamic balancing, vibration absorbers, vibrometer and accelerometer design, analysis of accelerometer and vibrometer data, seismic loads on buildings, vehicle suspensions, vibration of geared systems, vibration linkages. Prerequisite: Engineering 260B and Mathematics 305.

442-3 Structural Steel Design. An introduction to structural steel design with emphasis on buildings. Composite design. Plate Girders. Rigid frames. Prerequisite: 440 or consent of instructor.

444-3 Reinforced Concrete Design. Behavior and strength design of reinforced concrete beams, slabs, compression members, and footings. Prerequisite: 440 or consent of instructor.

447-2 Intermediate Mechanics of Materials and Structures. Shear center for beams. Unsymmetrical bending. Flexure of curved members. Contact stresses. Energy methods. Inelasticity in one dimension. Buckling formulas. Prerequisite: Engineering 311.

448-3 Experimental Stress Analysis. Development of theoretical equations of stress and strain and their transformations. Equations of equilibrium; compatibility equations; stress functions; applications of these equations in stress measurements; study of optical, mechanical, and electrical strain gauges; brittle coating; Moire' technique; and two-dimensional photoelasticity. Laboratory. Prerequisite: Engineering 311.

449-2 Intermediate Dynamics. Kinematics and kinetics of plane and three-dimensional motion. The principles of work and energy applied to the motion of rigid bodies. The principle of impulse-momentum applied to variable mass and rigid body systems including gyroscopic motion. Vibrational analysis of single degree of freedom systems. Prerequisite: Engineering 260b.

451-3 Numerical Methods in Mechanics. An introduction to the available numerical methods and techniques which are employed to solve engineering problems with special emphasis devoted to areas of mechanics involving stress analysis, vibrations, fluid flows, mechanisms, and structures. Prerequisite: Engineering 222, 311, 313 or consent of instructor.

458-2 Photoelasticity. Optics related to photoelasticity; theory of photoelasticity; photoelastic materials; analysis techniques; two-dimensional and three-dimensional photoelasticity; birefringent coatings; scattered light photoelasticity; application of photoelastic methods. Laboratory. Prerequisite: Engineering 311.

462-3 Matrix Methods of Structural Analysis. Flexibility method and stiffness method applied to framed structures. Introduction to finite elements. Prerequisite: 440 and Engineering 222 or consent of instructor.

464-2 Physical Metallurgy and Ceramics. Structure/composition determination for bulk and surfaces. Thermodynamics of solutions. Phase transformations. Structure and properties of aggregate and composite materials. Corrosion. Dislocation theory. Plastic flow. Fracture. Failure analysis. Prerequisite: Engineering 312.

465-3 Materials Preparation and Processing. Forming and processing of materials. Solidification: single crystal techniques, plane front and dendritic solidification, microsegregation, nonequilibrium structures. Vapor deposition: fractionation, physical vapor deposition, ion plating, sputtering. Thermal processing of solids: homogenization, crystallization, precipitation. Powder preparation, sintering and densification. Deformation processing: rolling, forging, extrusion, drawing, preferred orientation. Prerequisite: 464.

470-3 Engineering Analysis. Methods of solution for basic ordinary differential equations with applications to engineering systems. Basic methods of solution for partial differential equations with emphasis on applications of the Laplace, Poisson, and heat equations to engineering problems. Basic vector field theory; transformation theorems. Simulation techniques applied to engineering systems. Prerequisite: Mathematics 305 or equivalent.

472-3 Materials Selection for Design. Interaction of design parameters and materials selection parameters; comparison of alternative materials, thermomechanical processing, fabrication, joining methods, materials compatibility, and cost analysis. Projects in the selection of materials, processing and fabrication to meet the requirements of a design in the students' areas of specialization. Prerequisite: Engineering 312.

475-3 Mechanical Systems Design. Working stresses, shafting, springs, belts, other machine elements. Lubrication theory and practice, gears, belt drives, chains. Taught from text, association manuals, manufacturer's handbooks. Prerequisite: Engineering 260b, 311 or equivalent.
492-1 to 4 Special Problems in Engineering. Selected engineering topics and/or problems in (a) Stress analysis, (b) Fluid flow analysis, (c) Structural engineering, (d) Computational mechanics, (e) Materials engineering, and (f) Dynamics. Four hours maximum course credit. Prerequisite: consent of instructor.
504-3 X-Ray Diffraction and the Solid State.
505-3 Physical Properties of Crystalline Materials.
506-3 Solidification Processing.
512-3 Introduction to Theoretical Elasticity.
513-3 Mechanics of Viscous Fluids.
514-3 Mechanics of Inviscid Fluids.
515-2 Wave Motion.
518-3 Introduction to Turbulence.
540-2 Elastic Stability.
542-2 Theory of Plates.
544-3 Advanced Design of Reinforced Concrete.
545-3 Inelastic Metal Structures.
550-3 Advanced Compressible Fluid Flow.
561-3 Intermediate Vibrations.
580-1 to 4 Seminar.
592-1 to 4 Special Investigations in Engineering.
599-1 to 6 Thesis.
601-1 to 12 per semester Continuing Research.

MINING ENGINEERING (Department, Major [Engineering], Courses)

Mining engineers engage in design, development, and management of surface and underground mining systems for exploitation of mineral deposits from the earth's crust. The mining engineering option prepares graduates to meet the challenges of the mining engineering profession. Coursework in the option includes such areas as surface and underground mining systems, mine ventilation, ground control and rock mechanics, mineral and coal processing, material handling systems, mineral economics, and mine health and safety engineering. Facilities include modern, well-equipped rock mechanics, mine ventilation and mineral processing laboratories.

After completing the option, the graduate may work in an engineering or management position for mining industries, equipment manufacturing concerns, research organizations, or government agencies. The coursework also provides good preparation for further study at the graduate level.

Bachelor of Science Degree, College of Engineering and Technology

ENGINEERING MAJOR — MINING ENGINEERING SPECIALIZATION

General Studies Requirements		29[1]
GSA: Substitute basic science		
GSB	9	
GSC	9	
GSD: Substitute mathematics	7	
GSE	4	
Requirements for Major in Engineering		103
Basic Sciences	18[2]	
Physics 205a,b; 255a,b	8	
Chemistry 224 and 225	7	
Geology 220	3	
Mathematics 150, 250, 251, 305 and approved elective-3	17	
Engineering	34	
General: Engineering 100, 222, 361	7	

Engineering Sciences	23
Engineering 260a,b; 300, 302, 311, 313, 335, 385	
Engineering Design	4
Engineering 443	
Specialization in Mining Engineering	34
General: Geology	3
Mining Engineering	31
MNGE 320, 400, 410, 415, 420, 425, 431, 435, 440, 455, 475	
Total	132

[1]Courses required for the major will apply toward 16 hours of General Studies making a total of 45 in that area.
[2]Transfer students holding the associate degree in a baccalaureate-oriented program and having at least 18 semester hours of basic science approved by the department chairperson or a designate meet this requirement.

Courses

320-3 Surveying for Engineers. Analysis and application of tacheometry and mine correlation. Aerial surveying. Engineering design of haulage curves. Production measurement. Geophysical and borehole surveying. Prerequisite: Mathematics 251, junior standing in engineering discipline or consent of instructor.

400-3 Principles of Mining Engineering. Basic principles of mineral exploration, development, and processing. Environmental problems related to mineral development. Prerequisite: junior standing in engineering or consent of instructor.

401-1 Mining Environmental Impacts and Permits. Socio-economic impacts of mining industry. Analyzing the markets for coal and its products. Mining operations and related environmental impacts. Mining permits. Prerequisite: 400 or consent of instructor.

410-3 Underground Mining Systems Design. Study of coal property evaluation. Underground mining methods. Design of mine production and its ancillary systems and subsystems. Prerequisite: 400, junior standing in engineering or consent of instructor.

411-2 Mine Machinery. Analysis and design of underground and surface mining machinery. Equipment and parts selection. System development. Preventive maintenance. Prerequisite: 410.

413-2 Mine Power Systems. Study of electrical, hydraulic and pneumatic mine power systems. Selection and design of power systems and their components. Related economics and decision making criteria. Prerequisite: 410, and Engineering 385, or equivalent, or consent of instructor.

415-3 Surface Mining and Land Reclamation. Surface mining systems for coal and noncoal minerals. Development of mining operations, equipment selection, mine planning and design, land reclamation, erosion and sedimentation control. Prerequisite: 400, junior standing in engineering or consent of instructor.

420-3 Mineral and Coal Processing. Impurities in coal and their impact on the market. Impurities liberation and separation methods. Product preparation. Coal washability characteristics. Flow sheet development. Recovery of minerals from tailings, slurry ponds and mine waste. Economics of mineral processing. Prerequisite: 400 or consent of instructor.

421-2 Coal Conversion and Combustion Processes. Overview of major present-day and proposed processes converting coal to other energy forms (gaseous or liquid fuels, coke, steam, electricity, etc.). The physical and chemical properties of coal and the chemical reaction relationships which affect the conversion process paths. Process design aspects of coal-fed boilers, coking ovens, and coal gasification/liquefaction reactor systems. Environmental and cost considerations related to the construction of coal conversion plants. Prerequisite: graduate or senior standing in a scientific discipline.

425-3 Mine Ventilation Systems Design. Study of the theories and practice of natural and forced mine ventilation. Fan and mine characteristics. Ventilation network analysis. Mine ventilation design and problem analysis. Prerequisite: 410, Engineering 313, or consent of instructor.

431-3 Rock Mechanics and Ground Control. Analysis of stress and strain, elementary elasticity, stress distribution around mine openings and pillars, engineering properties of rocks, support of mine workings, subsidence, design of mine openings. Laboratory. Prerequisite: 410, Engineering 311, or consent of instructor.

435-3 Operations Research and Computers in Mine Design. Mine systems analysis, operations research and statistics in decision making, production engineering, mine planning, optimization, linear programming, computer simulation. Prerequisite: 410, 415, Engineering 222, or consent of instructor.

440-2 Design of Material Handling Systems. Study of material handling and waste disposal methods. Material handling systems selection. Systems design and development. Material handling economics. Prerequisite: 410 or consent of instructor.

455-2 Mine Health and Safety Engineering. Analysis of mine hazards and accidents, sealing and recovery of mines, design of mine emergency plans, safety methods, and health hazard control plans. Prerequisite: 410, 415 or consent of instructor.
470-2 Experimental Methods in Rock Mechanics. Supplement theoretical knowledge gained in 431 with laboratory experiments. Physical property tests for specific gravity, moisture, density porosity of rocks. Unconfined and confined compressive strength, tensile strength, shear strength, photoelasticity, static and dynamic strain measurement systems, field instrumentation techniques. Prerequisite: 431.
475-3 Design of Mine Excavations. Rock classification; design of shafts, slopes, tunnels, and underground chambers; support requirements; design of slopes; design of underground mining systems from ground control point of view; design of impoundments. Prerequisite: 431 or consent of instructor.
511-3 Advanced Ground Control.
519-2 Advanced Mine Environment and Pollution Control.
530-3 Mine Management.
550-1 to 3 Internship.
580-1 to 2 Seminar.
592-1 to 5 Special Investigations.
599-1 to 6 Thesis.
601-1 to 12 per semester Continuing Research.

THERMAL AND ENVIRONMENTAL ENGINEERING (Department, Major [Engineering] Courses)

The option in thermal and environmental engineering prepares graduates to provide engineering solutions to problems such as optimum energy utilization, conservation of resources and environmental protection by working in or across the areas associated with traditional engineering disciplines. This option allows study of energy and environmental areas. The energy areas include heat and mass transfer, thermal systems and processes such as solar, coal conversion, electric power plants, refrigeration, engines. The environmental areas include wastewater, potable water, air pollution, waste heat, solid waste, and industrial waste. Previous graduates are successfully practicing in manufacturing and energy industries, in consulting engineering firms, in state and federal agencies, and in graduate studies.

Bachelor of Science Degree, College of Engineering and Technology

ENGINEERING MAJOR — THERMAL AND ENVIRONMENTAL ENGINEERING SPECIALIZATION

General Studies Requirements ..... 29[1]
GSA: Substitute basic science
GSB 9
GSC 9
GSD: Substitute mathematics 7
GSE 4
Requirements for Major in Engineering 103
Basic Sciences ..... 18[2]
Physics 205a,b; 255a,b 8
Chemistry 224 and 225 7
GSA 110 or 115 or 209, or substitute Geology 220 3
Mathematics 150, 250, 251, 305 and approved elective-3 17
Engineering 31
General: Engineering 100, 222, 361 7
Engineering Sciences 20
Engineering 260a, b, 300, 302, 312, 335, 345 or 385
Engineering Design 4
Engineering 443
Specialization in Thermal and Environmental Engineering 37
Engineering Sciences 13
TEE 314; select three from the following:

Engineering 313, 455, TEE 301, 400, 405	
Engineering Design	16
TEE 404, 408, 435; select two from the following: TEE 402, 406, 407, 415, 416, 419, EMM 409, 475	
Engineering Laboratory	1
TEE 401 or 417 or 418	
Approved technical electives	7
Total	132

[1]Courses required for the major will apply toward 16 hours of General Studies making a total of 45 in that area.
[2]Transfer students holding the associate degree in a baccalaureate-oriented program, and having at least 18 semester hours of basic science approved by the department chairperson or a designate, meet this requirement.

Courses

Safety glasses, an electronic calculator or a slide rule with log-log scales, and textbooks are required of all thermal and environmental engineering students.

301-3 Engineering Thermodynamics II. Combined first and second law analysis; availability and reversibility. Third Law. General thermodynamic relations. Reactive systems. Thermodynamic equilibrium. Phase Rule. Applications. Thermodynamics of one dimensional fluid flow. Prerequisite: Engineering 300.

314-4 Introduction to Environmental Pollution. Basic engineering aspects and interrelation of air, water and land pollution. Problems, sources and effects of pollution. Pollution abatement. State and Federal air and water quality standards and engineering systems for pollution abatement. Prerequisite: Chemistry 224, junior standing. Elective Pass/Fail.

400-3 Power and Refrigeration Cycles. Use of engineering thermodynamics in analysis of power and refrigeration cycles. Detailed treatment of various gas and vapor power cycles including combined gas and steam cycles. Thermodynamics of combustion. Gas and vapor refrigeration cycles. First and Second Law analysis and turbo-machinery. Prerequisite: Engineering 300.

401-1 Thermal Measurements Laboratory. Study of basic physical measurements used in the thermal sciences. Calibration techniques for temperature sensors. Transient and steady-state error analysis. Thermal and transport property measurements. Prerequisite: Engineering 302.

402-3 Heat Exchange Equipment Design. Thermal radiation. Radiation with participating media. Combined convection and radiation. Principles of furnace design. Moist air heating and cooling coils. Enthalpy potential. Cooling coil design. Refrigerant evaporators and condensers. Two-phase flow regions. Freon heat exchangers. Heat pipes. Prerequisite: Engineering 300 and 302.

404-4 Optimization of Process Systems. The simulation and optimization of industrial process systems based on the principles of thermodynamics, heat transfer, mass transfer, and fluid mechanics. The analysis and correlation of experimental engineering data, and the use of the correlated data in process simulations. The mathematical modeling of the performance of energy transfer and environmental treatment equipment (pumps, turbines, mass and heat exchangers, etc.) from analytical predictions and experimental results. The application of the principal optimization methods encountered in engineering practice. Computer applications. Prerequisite: Engineering 361, Mathematics 305 and senior standing in engineering.

405-3 Internal Combustion Engines and Gas Turbines. Operation and performance characteristics of Otto, Diesel, Wankel engines and gas turbines. Methods of engine testing, types of fuels and their characteristics, fuel metering systems, engine combustion analysis as related to engine performance, fuel characteristics and air pollution, exhaust gas analysis, and air pollution control. Prerequisite: 301.

406-3 Thermal Systems Design. Application of the principles of engineering analysis to the design of thermal systems. Consideration of such systems as refrigerators, building air conditioning systems, spacecraft control systems, solar heating systems, and gas liquefying systems. Prerequisite: Engineering 300, 302.

407-3 Solar Heating Design. Characteristics of solar energy. Design of passive, active, and hybrid solar heating systems. Introduction to advanced systems. Design of solar assisted heat pump systems. Prerequisite: Engineering 300.

408-3 Energy Conversion and Conservation Systems. Energy resources, renewable and nonrenewable, their use and development. Criteria for selecting alternative energy systems. Energy conversion systems for power generation: nuclear fission, nuclear fusion, fossil fuels; geothermal and solar energy. Societal, economic, and environmental constraints on design and utilization of the energy conversion systems. Principles of energy

conservation; applications. Emphasis on analysis and engineering design of engineering systems. Prerequisite: Engineering 300.
415-3 Wastewater Treatment. A study of the design equations used in physical, chemical, and biological treatment processes and comparison to design by state standards. Basics of bacteria and their metabolic processes in the degradation of organic wastes. Treatment and disposal of sludges produced in wastewater treatment. Advanced waste treatment processes; reuse of wastewater. Concurrent enrollment in 417 is recommended for students in thermal and environmental engineering option. Prerequisite: 314.
416-3 Air Pollution Control. Engineering control theory, procedures, equipment, and economics related to particulate and gaseous emissions control. The environmental impact of controlling emissions. Sampling and analysis procedures. Laboratory work includes design, construction, and use of a source sampling system. Safety glasses are required. Concurrent enrollment in 418 is recommended for students in thermal and environmental engineering option. Prerequisite: 314.
417-1 Water Quality Laboratory. Measurements of water quality parameters performed. Use of modern instrumental techniques demonstrated. Safety glasses are required. Prerequisite: 314.
418-1 Air Quality Laboratory. This laboratory consists of design, construction, and use of systems to measure and analyze ambient atmospheric pollution. Safety glasses required. Prerequisite: concurrent enrollment in 416.
419-3 Water Supply and Treatment. Water quality requirements, water sources, water treatment to include coagulation and flocculation, mixing and sedimentation basins, filtration, disinfection processes, and water softening. Consideration of toxic elements in water (sources, problems, and treatments). Prerequisite: 314.
423-3 Waste Heat Management. Energy sources and waste heat produced in their utilization. Management of heated surface water effluents to minimize their ecological impact; chemical, physical, and biological. Methods of waste heat disposal from electric power plants. Selection and design of waste heat disposal systems. Prerequisite: 314, Engineering 300, or consent of instructor.
435-3 Heat and Mass Transfer Processes. Review of single phase and two phase heat transfer. Heat exchanger design. Mass transfer principles and processes. Processes involving simultaneous heat and mass transfer. Prerequisite: 302.
492-1 to 5 Special Problems in Engineering. Engineering topics and problems selected by either the instructor or the student with the approval of the instructor. Five hours maximum course credit. Prerequisite: senior standing and consent of instructor.
500-3 Advanced Engineering Thermodynamics.
501-3 Transport Phenomena.
502-3 Advanced Heat Transfer.
503-3 Convective Heat Transfer.
507-3 Combustion Phenomena.
510-3 Solid Waste Collection and Disposal.
515-3 Advanced Biological Treatment Processes.
516-3 Water Resources Management.
517-3 Industrial Waste Treatment.
525-3 Small Particle Phenomena.
531-4 Reaction Engineering and Rate Processes.
532-3 Separation Processes and Equilibrium Operations.
580-1 to 4 Seminar.
592-1 to 4 Special Investigations in Engineering.
599-1 to 6 Thesis.
601-1 to 12 per semester Continuing Research.

Engineering Biophysics (Major, Courses)

The program is essentially a five-year curriculum leading to the Master of Science degree in engineering biophysics. However, a full four-year undergraduate curriculum is offered leading to the degree of Bachelor of Science with a major in engineering biophysics. The undergraduate curriculum is interdisciplinary, emphasizing selected areas in the behavioral, engineering, life, mathematical, and physical sciences. The first two years of the program are sufficiently general and basic that the student can move freely from this program into the traditional scientific disciplines without penalty. The fifth year emphasizes advanced aspects in the behavioral and life sciences and provides the student optimum flexibility in electives as well as practical biomedical experience.

Students interested in this program will be advised by the administrator of the program or by members of the executive committee.

Bachelor of Science Degree, College of Science

General Studies Requirements	45[1]
Supplementary College of Science Requirements	11
Foreign Language (French, German, or Russian recommended)	(4)+4
Biological Science (Not General Studies)	6[2]
Mathematics 111	(4)+1
Requirements for Major in Engineering Biophysics	60-62[3]
Required courses are selected in consultation with the administrator to ensure a background of basic courses in natural, physical, and social sciences.	
Electives	2-4[4]
Total	120

[1]The 45 hour requirement may be reduced by taking College of Science or major requirements which are approved substitutes for General Studies courses.
[2]With proper selection, these courses can also satisfy the GSA-2 requirement.
[3]It is assumed the student will take General Studies substitute courses and the hours in the major may be increased by an equivalent amount.
[4]By effecting footnote 2, electives can be increased to 7-9 credits hours.

Courses

492-1 to 5 (1 per semester) Colloquy in Engineering Biophysics I. Discussion of topics related to engineering biophysics; guest lecturers, field trips. Offered in spring semesters only. Required for undergraduate engineering biophysics majors. Mandatory Pass/Fail.
592-1 to 3 (1 per semester) Colloquy in Engineering Biophysics II.
598-1 to 6 Internship in Engineering Biophysics.
599-1 to 6 Thesis.
601-1 to 12 per semester Continuing Research.

Engineering Mechanics and Materials

(SEE ENGINEERING)

Engineering Technology (Major, Courses)

Engineering technology is that part of the technological field which requires the application of scientific and engineering knowledge and methods combined with technical skills in support of engineering activities; it lies in the occupational spectrum between the technician and the engineer at the end of the spectrum closest to the engineer.

All curricula in engineering technology are accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (formerly the Engineers' Council for Professional Development.) These curricula are the civil engineering technology, electrical engineering technology, and mechanical engineering technology specializations.

Bachelor of Science Degree, College of Engineering and Technology

ENGINEERING TECHNOLOGY MAJOR — CIVIL ENGINEERING TECHNOLOGY SPECIALIZATION

The civil engineering technology specialization is primarily suited for those students interested in pursuing careers with highway departments or in construction industries. However, the broad range of studies insures a solid technical background in many areas of civil engineering technology. Graduates of the program are employed by railroads, coal companies, consulting engineering firms, state and local agencies, and various construction firms.

General Studies Requirements	45
Requirements for Major in Engineering Technology	76
GSD 118	(2)
Chemistry 140a	(3)+1
Mathematics 111, 150, 250	(4)+9
Physics 203a, b; 253a, b	(6)+2
Engineering 222	2
Industrial Technology 390	3
Engineering Technology 103, 202, 245a, 260a, b, 310a, 311, 313a, 314a, 315, 318a, c, 363a, 363b or c, 364a, 365, 426a, approved technical electives-9	59
Electives	3
Total	124

ENGINEERING TECHNOLOGY MAJOR — ELECTRICAL ENGINEERING TECHNOLOGY SPECIALIZATION

The electrical engineering technology specialization is designed to prepare technologists who are capable of technical design and who can contribute to the development and production of electrical circuits and devices. In addition, graduates are capable of participation in the planning and installation of power distribution systems and operating and maintaining complex electrical systems. Graduates of the program are employed in communications, power, electronics, sales, manufacturing, and other fields.

General Studies Requirements	45
Requirements for Major in Engineering Technology	76
GSD 118	(2)
Chemistry 140a	(3)+1
Mathematics 111, 150, 250	(4)+9
Physics 203a, b; 253a, b	(6)+2
Engineering 222	2
Industrial Technology 390	3
Engineering Technology 103, 245a, 260a, b, 304a, b, 313a, 318a, 332a, b, 403a, b, 437a, b, 438a, approved technical electives-10	59
Electives	3
Total	124

ENGINEERING TECHNOLOGY MAJOR — MECHANICAL ENGINEERING TECHNOLOGY SPECIALIZATION

The mechanical engineering technology specialization is designed to prepare graduates for a career in the power industry; provides a background in general mechanical technology. Graduates are employed in industries which have a need for technologists trained in the generation, transmission, and utilization of mechanical energy.

General Studies Requirements	45
Requirements for Major in Engineering Technology	76
GSD 118	(2)
Chemistry 140a	(3)+1
Mathematics 111, 150, 250	(4)+9
Physics 203a, b; 253a, b	(6)+2
Administrative Sciences 301	3
Engineering 222	2
Industrial Technology 390	3

Engineering Technology 103, 104, 245a, 260a,b, 301a, 308a, 311, 313a,b, 318a,b, 320, 323, 424a,b, approved technical electives-9	56
Electives	3
Total	124

Courses

Safety glasses, a suitable calculator, and textbooks are required for most of the following courses.

103-3 Engineering Drawing I. Principles and practices of engineering drawing. Orthographic (multiview) projection; sections and conventions; the spatial relationship of points, lines, and planes; revolution; and basic dimensioning and tolerancing. Drawing supplies and problems workbook required, costing approximately $15.00.

104-3 Engineering Drawing II. Principles and practices of engineering drawing. Representation of mechanical components; dimensioning; tolerancing; electrical and electronic diagrams; and fluid power diagrams. Drawing supplies and problems workbook required. Cost is approximately $8.00. Prerequisite: 103.

202-2 Structural Detailing. Principles and practices of engineering drawing as applied to structural design with emphasis on reinforced concrete and structural steel drawings. Drawing supplies required, cost $8.00. Prerequisite: 103.

236-2 Electrical Instrumentation. Theory and use of D.C. and A.C. instruments; measurement and error, units, standards, meters, bridges, oscilloscopes, electronic instruments, instruments for generation and analysis of waveforms, counters, and transducers. Laboratory. Prerequisite: Mathematics 111.

244-3 Mechanical Systems for Industry. A mechanical fundamentals course covering such topics as gears, belts, other machine parts, fluidics, and lubrication techniques. No credit granted toward mechanical engineering technology graduation requirements.

245-6 (3, 3) Electrical Systems for Industry. **(a)** Fundamentals of electrical lighting and industrial wiring. Motor types, synchronous motors, fractional-horsepower motors, applications, bearings, lubrication and rebuilding. Laboratory. Prerequisite: Mathematics 111. **(b)** Introduction to electronics: laboratory practices, oscilloscopes, meters, components, power supplies, amplifiers, and characteristics of semiconductor devices. Laboratory. Prerequisite: Mathematics 111.

260-7 (4, 3) Principles of Mechanics. **(a)** Statics and Strength of Materials. Principles of forces, moments, and static equilibrium; centroids, centers of gravity, and moments of inertia; stress and strain; torsion, bending, and combined stresses. **(b)** Dynamics. Friction; particles and rigid bodies in translation, rotation, and plane motion; relative motion; impulse and momentum; work and energy. Must be taken in a,b sequence. Prerequisite: Mathematics 150 or concurrent enrollment, Physics 203a.

263-3 Mine Surveying. Development of basic surveying practices and use of surveying equipment, linear and angular measurements; mapping, calculations; applications of mine surveying. Laboratory. Civil engineer's scale required costing approximately $3.00. Field notebook for each course costs approximately $1.00. No credit granted toward civil engineering technology graduation requirements. Prerequisite: Mathematics 111.

301-6 (3, 3) Refrigeration and Air Conditioning. **(a)** Discussion of refrigerating cycles. Refrigeration at more than one level. Operation and ratings of various types of compressors, evaporators, condensers, and automatic controls used in commercial refrigerating sytems. Heat flow problems in condensers, evaporators, and cooling towers. Prerequisite: 313a. **(b)** Control of temperature and humidity in buildings, or other large areas. Air handling equipment, duct systems, and air distribution within the space. Fundamental principles and techniques for cooling and dehumidification for comfort. Equipment and control systems. Prerequisite: 313a.

304-7 (4, 3) Electrical Circuits. **(a)** Solutions to D.C. steady-state networks by branch, equivalent circuit, loop current, and node voltage methods. Study of network theorems. Extension of these topics to A.C. steady-state by use of the phasor transform. Laboratory. Prerequisite: Mathematics 150 or concurrent enrollment. **(b)** Further topics in A.C. circuits; frequency response, resonance, filters, transformers and magnetic coupling, complex power, and dependent sources. Transient response by the classical solution of differential equations and by Laplace transform methods. Laboratory. Prerequisite: 304a, Mathematics 250 or concurrent enrollment.

308-6 (3, 3) Machine Design. **(a)** Strength and safety considerations in design of machine parts. Fatigue and stress concentrations, bearings, brakes, clutches and springs. Applications of the principles of mechanics to problems of design and development, mechanisms. Prerequisite: 260a. **(b)** Combined stresses, gearing, curved beams, high speed cams, thick cylinders, and flat plates. Student undertakes the design of a complete machine. Prerequisite: 308a, 311.

310-6 (3, 3) Heavy Construction. (a) The fundamental elements of heavy construction methods and equipment. Prerequisite: 206a, b or consent of instructor. (b) Construction planning, estimating, and management procedures and techniques. Complete detailed contractor's estimates for bid are prepared for a heavy construction project. Civil engineer's scale required, costing approximately $3. Prerequisite: 310a.
311-3 Strength of Materials. Bending stresses; combined stresses; beam deflections; behavior of columns. Laboratory. Prerequisite: 260a.
313-6 (3, 3) Elementary Heat Power. (a) The fundamental laws of heat power, properties of systems, liquids, vapors, and liquid-vapor mixtures. (b) Engine cycles and applications. Must be taken in a,b sequence. Prerequisite: Mathematics 150.
314-6 (3, 3) Soil Mechanics. (a) Laboratory determination of the basic properties of soils; components of soil surveys; engineering soil classifications; fundamental study of soil properties. Laboratory. Laboratory notebook required, costing approximately $4. (b) Soil water and seepage; frost action in soils; soil stabilization; stress distribution in soils and introduction to foundation design. Prerequisite: 260a, 314a.
315-3 Elementary Structural Analysis. Applications of the principles of mechanics to the determination of forces and deflections of statically determinate structures; approximate methods of determining member forces in indeterminate frames; study of various types of structures and loading conditions. Prerequisite: 260a.
318-8 (2, 3, 3) Hydraulics and Pneumatics. (a) Fundamentals of fluid statics, basic fluid flow concepts for idealized fluids, flow networks, and introduction to viscous fluids. Prerequisite: 260b or concurrent enrollment. (b) Viscous flow in closed conduits, basic hydraulic machinery and fluid power systems. Laboratory. Prerequisite: 318a, Engineering 222. (c) Flow measuring devices; collection, storage and distribution of water; collection and transportation of sewage; pumps and pumping. Laboratory. Prerequisite: 318a.
320-3 Mechanical Laboratory. Various types of measuring instruments; gas analysis; lubricant testing, and testing of thermodynamic systems, including internal combustion engines, fans, heat exchangers, and refrigeration systems. Laboratory. Safety glasses required, costing approximately $4. Prerequisite: 313a.
322-3 Internal Combustion Engines. The design and principles of operation of internal combustion engines. The Otto, Diesel, and Brayton cycles and the fundamental thermodynamic laws involved. Prerequisite: 313a.
323-2 Operation of Public Utilities. (See Economics 323.) Prerequisite: GSB 211 or consent of instructor.
332-6 (3, 3) Electromechanical Principles and Devices. (a) Introduction to D.C. and A.C. machinery. Theory and operating characteristics of D.C. generators and D.C. motors. Laboratory. Prerequisite: 304a or concurrent enrollment. (b) Theory and operating characteristics of polyphase and single-phase A.C. motors. Special applications of A.C. and D.C. motors. Laboratory. Safety glasses required, costing approximately $5.00. Prerequisite: 304a or concurrent enrollment.
342-2 Technology Design. An elective project on any technical subject selected by the student with advice from the instructor. Stimulates original thought and creativity. Prerequisite: senior standing.
363-9 (3, 3, 3) Surveying. (a) Use and care of surveying instruments; principles of surveying practice and computations. Laboratory. Prerequisite: 103, Mathematics 111. (b) U.S. Public Land Systems and boundary surveys; route surveying; field astronomy. Laboratory. Prerequisite: 363a. (c) Topographic surveying; precise surveying; geodesy. Laboratory. Prerequisite: 363a. Civil engineer's scale, costing approximately $3.00 and field notebook, costing approximately $1.00, required for each course.
364-7 (4, 3) Highway Engineering Technology. (a) Highway surveys, plans and computations. Highway design, drainage, roadside development and subgrade structure. Study of types of base courses, pavements, and surfaces. Highway construction and maintenance. Laboratory. Prerequisite: 363a, 314a or consent of instructor. (b) Highway administration, planning, economics, and finances. Traffic engineering. Introduction to railroad and airport design. Prerequisite: 364a.
365-3 Water Treatment and Sanitation. Introduction, description, and design of potable water and wastewater facilities. Chemical coagulation, sedimentation, disinfection, and hardness removal of water. Sanitation measures and control of communicable diseases. Prerequisite: senior standing in civil engineering technology or consent of instructor.
403-8 (4, 4) Electronics Technology. (a) Fundamental theory and operation of semiconductor diodes and bipolar transistors, incremental models for transistors, biasing, stability, and feedback of single and multistage amplifiers. Parameters and applications of field-effect transistors, opto-electronic devices, thyristors, unijunction transistors and amorphous semi-conductors. Laboratory. (b) Parameters and applications of operational amplifiers, linear integrated circuits, monolithic voltage regulators, and digital integrated circuits. Laboratory. Must be taken in a,b sequence. Prerequisite: 340b.
415-4 Elementary Structural Design. Introduction to structural properties of steel and reinforced concrete. Design of basic steel elements: tension members, beams, columns, and connections. Basic design of reinforced concrete elements: beams, columns, and footings. Use of AISC and ACI codes. Prerequisite: 311 (or concurrent enrollment), 315.

424-6 (3, 3) Power Systems Technology. (a) Fundamentals of basic power plant operation and equipment; e.g., fuels, steam generators, heat exchangers, turbines, pumps, and nuclear reactors. Prerequisite: 313a. (b) A study of cycles, heat balances, efficiencies and power plant economics. Student is exposed to the design considerations and trade-offs associated with the total design of a power plant. Prerequisite: 313b, 318b, 424a.
426-4 (2, 2) Photogrammetry. (a) Cameras and photography; flight planning; mathematical principles of vertical and tilted aerial photographs; ground control methods; extension of control; stereoscopy and parallax; basic instruments, stereo plotters, and latest developments. Laboratory. Prerequisite: 363a or consent of instructor. (b) Rectification of tilted photographs; stereoscopic plotting instruments; principles and use of oblique photography; analytic photogrammetry and new concepts. Laboratory. Prerequisite: 426a or consent of instructor.
437-6 (3, 3) Communications Systems Technology. (a) Radio-frequency transmission-line theory. Electromagnetic fields in rectangular and circular waveguides. Laboratory. Prerequisite: 340b. (b) Communication systems with a unified treatment of various types of transmission systems with emphasis on the role of system bandwidth and noise in limiting the transmission of information. Laboratory. Prerequisite: 403a, 437a.
438-8 (4, 4) Design of Control and Digital Systems. (a) Fundamentals of control systems; equations of electrical, mechanical, hydraulic, and thermal systems; applications of Laplace transforms, transfer functions, block diagrams and flowgraphs. Computer implemented graphical analysis and design methods: root locus, frequency response. Nyquist diagrams, and compensator design. Continuous-systems simulation laboratory. Prerequisite: 340b, Engineering 222. (b) Design of digital systems; logic operations; number systems and applications. Digital systems simulation laboratory. Prerequisite: Engineering 222.
439-3 Microprocessor Applications and Hardware. A study of microprocessor applications and hardware based on microprocessor manufacturer's literature. System configuration, hardware, requirements, typical instruction set, programming, input/output techniques, interfaces, and peripheral devices. Prerequisite: 438b or concurrent enrollment.
492-1 to 6 Special Problems in Industry and Technology. Special opportunity for students to obtain assistance and guidance in the investigation and solution of selected technical problems. Prerequisite: consent of instructor.

English (Department, Major, Courses)

The major in English is 36 semester hours at least half of which must be taken at Southern Illinois University at Carbondale. The English major may choose from four specializations.

Students who wish to declare English as a major should consult the director of undergraduate programs in English early in their college careers. Continuing students who wish to declare an English major should petition the Department of English for admission to the department. Transfer students should bring their transcripts and evaluation of transfer credit. Thereafter, all English majors must have their advance registration forms signed by an adviser in the Department of English. Only English courses which are completed with at least a *C* will fulfill a major requirement. Deviations from regular programs must have prior written department approval.

Students who wish to construct an inter-departmental major in English and certain related fields may do so in consultation and with the approval of an English department adviser.

All students are strongly urged to supplement their English majors through the study of classical and modern languages, as well as the study of foreign literature in translation. Majors preparing for graduate school should take two years of a foreign language.

Although a minor field is not required, students are urged to consider complementary minor fields such as foreign languages and literatures, history, philosophy, and journalism.

ENGLISH CORE CURRICULUM

All students majoring in English will take the following courses:

English 302a, 302b, 309, 390, and 471 or 472.

Bachelor of Science Degree, College of Education or
Bachelor of Arts Degree, College of Liberal Arts

Students who wish to become certified teachers of English may pursue their majors as follows:

General Studies Requirements	45
Requirements for Major in English	36
Professional Education Requirements	25[1]
See Teacher Education Program, page 77	
Electives	14
Students in the College of Liberal Arts must complete the college requirements as a part of the 14 hours. (See page 84.)	
Total	120

In addition to the core curriculum teacher training candidates will take the following courses:

English 300; 485; a 400-level course in English literature before 1800; a 400-level course in American literature before 1900; a 400-level course in continental literature; two electives chosen from 300 and 400-level English courses.

[1]In order to qualify for entrance into the teacher education program and for a student teaching assignment, students must have a grade point average of at least 2.50 (*A* is 4.0) in the major.

Bachelor of Arts Degree, College of Liberal Arts

A student may wish to pursue one of several specializations in the College of Liberal Arts. The degree earned and the requirements for the degree are as follows:

General Studies Requirements	45
Supplementary College Requirements	
Refer to catalog section titled College of Liberal Arts	6-8
Requirements for Major in English	36
Electives	31-33
Total	120

ENGLISH MAJOR — GENERAL SPECIALIZATION

In addition to the core curriculum, students will take seven electives from the 200, 300, and 400-level courses in English, with several courses at the 400-level. At least one of these elective courses must be a course in English literature before 1800, one a course in American literature before 1900 and one a course in Continental literature. In addition, at least one of these elective courses must be in each of the three major genres: prose fiction, poetry, and drama. Students planning to enter graduate school are strongly urged to take two years of a foreign language or the equivalent. Students should consult with their departmental adviser to achieve a suitable range and breadth of course work.

ENGLISH MAJOR — GENERAL WRITING AND CREATIVE WRITING SPECIALIZATION

In addition to the core curriculum, students should take at least two courses selected from English 281, 282, 283; at least two courses from 381, 382, 383; and English 492. Elective courses outside the Department of English may be accepted toward the major with prior written approval of the Department of English.

ENGLISH MAJOR — PREPROFESSIONAL SPECIALIZATION

In addition to the core curriculum, majors interested in such fields as law, business, and government will take the following courses:

English 300, 391, 445; four electives, which may concentrate on a special interest, and which, with the consent of the departmental adviser, may include courses in other departments.

ENGLISH MAJOR – DEPARTMENTAL HONORS PROGRAM SPECIALIZATION

The department honors program is open to all undergraduate English majors who maintain a 3.5 grade point average in their English major courses and a 3.25 average overall. Determination of eligibility will be made at the beginning of the student's second semester of junior level work.

In addition to the core curriculum, the honors student should take at least four elective courses on the 400 level. 200 and 300 creative writing courses may count as electives for students initially enrolled in the creative writing option, and English 300 will count as an elective for students initially enrolled in the teaching option. In addition, the student must take at least one English honors seminar, English 497, for three hours of credit, and write a senior honors research paper. If the student elects, the paper will count for six hours of credit toward the English major. The student may elect to write a paper worth only three hours of credit. In that case the student must take a second English honors seminar worth three hours of credit.

The senior honors paper will be an independent research project undertaken through mutual agreement between the honors student and a member of the continuing English faculty.

Minor

The minor in English is a minimum of 18 semester hours. Minors are available with several specializations, and the following are listed as examples only. Students interested in English as a minor are invited to confer with the director of undergraduate programs in English, or an adviser in the Department of English.

ENGLISH MINOR – TEACHING SPECIALIZATION

For students who wish to meet the minimum certification requirements for teaching English in the secondary schools, the following courses are required: English 209; 300; 390; 471 or 472; and two of the following: English 302a, 302b, 309, 445.

For the following minor specializations, these courses are recommended as part of the 18 hour minimum.

ENGLISH MINOR – PREPROFESSIONAL SPECIALIZATION

English 209; 300; 391; 445; 471 or 472.

ENGLISH MINOR – GENERAL WRITING OR CREATIVE WRITING SPECIALIZATION

Writing minors should take at least one course from English 290, 390; two courses from English 281, 282, 283; and two courses from English 381, 382, 383.

ENGLISH MINOR – WORLD LITERATURE SPECIALIZATION

English 209, 390; and four courses from 425, 438, 445, 455, 465. For further information, see catalog section titled Comparative Literature.

ENGLISH MINOR – OTHER SPECIALIZATIONS

Students wishing to arrange other specializations in English should consult the director of undergraduate programs in English or one of the departmental advisers.

Courses

209-3 Introduction to the Forms of Literature. Poetry, drama, and fiction. Statement and illustration of the techniques of the three genres over the range of American and English literature. Prerequisite: GSD 120; or GSD 117, 118, or 119; or equivalent.

281-3 Creative Writing: Beginning Fiction. Introduction to basic techniques of writing creative prose with emphasis on characterization, plot, and narrative devices. Study and application of various methods of short story writing. Exercises. Critiques. Prerequisite: GSD 120 or 119 or consent of instructor. Elective Pass/Fail.

282-3 Creative Writing: Beginning Poetry. Introduction to basic theories and techniques of poetry writing with emphasis on metrics, forms, and poetic stanzas. Study and application of each of these general aspects of writing poetry. Exercises. Critiques. Prerequisite: GSD 120 or 119 or consent of instructor. Elective Pass/Fail.

283-3 Creative Writing: Beginning Drama. Introduction to basic problems and techniques of dramatic presentation. Emphasis on producing works for the amateur market, with a secondary purpose of advising future teachers of possibilities of using plays, skits, etc., as teaching aids. Exercises in creating original dramatic material. Critiques. Prerequisite: GSD 120 or 119 or consent of instructor. Elective Pass/Fail.
290-3 Intermediate Expository Writing. Designed for any University student, to improve writing skills beyond freshman composition. Based on individual needs and areas of specialization. Prerequisite: GSD 120; or GSD 117, 118 or 119; or equivalent.
291-1 Writing Research Papers. A course for any student in the University who wants or needs intensive, directed help in preparing research papers. Instruction will be individualized by directing students in the use of the style sheet recommended by their major department. Prerequisite: GSD 120; or GSD 117, 118, or 119; or equivalent.
300-3 Introduction to Language Analysis. Nature of language and linguistic inquiry. Dialectology, usage, and chief grammatical descriptions of present day American English. Required of teacher training candidates.
302A-3 Literary History of England, Beowulf to 1800. Social, historical, and intellectual backgrounds of English literature with selected readings from each period from Beowulf to 1800.
302B-3 Literary History of England, 1800 to Present. Social, historical, and intellectual backgrounds of English literature with selected readings from each period from 1800 to the present.
309-3 A Literary History of the United States. Social, historical, and intellectual backgrounds of American literature, with selected readings for each period.
381-3 Creative Writing: Advanced Fiction. Emphasis on the long short story and novella with exercises and study oriented to more sustained forms of prose than the short story. Theories and techniques of extended fictional forms treated. Critiques. Prerequisite: 281 or consent of instructor. Elective Pass/Fail.
382-3 Creative Writing: Advanced Poetry. Concentration on modern forms and theories of poetry. Writing assignments and exercises in the application of various poetic techniques, primarily 20th century American. Critiques. Prerequisite: 282 or consent of instructor. Elective Pass/Fail.
383-3 Creative Writing: Advanced Drama. Concentration on serious literary statements through drama, and on practical instruction in writing extended and concentrated dramatic forms. Presentation of various dramatic theories through the study of representative plays. Drama writing exercises and critiques. Prerequisite: 283 or consent of instructor. Elective Pass/Fail.
390-3 Advanced Composition. Expository writing. Prerequisite: *C* average in GSD 120; or *C* average in GSD 101 and 117, 118, or 119; or equivalent. Open to English majors and minors or with consent of department.
391-3 Precision in Reading and Writing. To improve the student's ability to read and write with precision and clarity, depending on reading complex material (requiring no particular background for comprehension) and on writing precis of it. Prerequisite: grade of *B* in GSD 117, 118, or 119; or *C* in GSD 120; or *C* in English 290.
393-3 to 9 (3 per topic) Special Topics in Literature and Language. Topics vary and are announced in advance. Both students and faculty suggest ideas. May be repeated as the topic varies. Prerequisite: departmental approval. Elective Pass/Fail.
400-3 Introduction to English Linguistics. Methods of structuralizing: phonetics, phonemics, morphemics, syntax. Especially recommended for students preparing to teach English to native speakers. Elective Pass/Fail.
403-3 History of the English Language. A survey of the development of the language from Indo-European to modern English with special emphasis on Middle and Early Modern changes. Elective Pass/Fail.
404-3 Middle English Literature Excluding Chaucer. Elective Pass/Fail.
405-3 Middle English Literature: Chaucer. Elective Pass/Fail.
412-3 English Non-Dramatic Literature: The Renaissance. Elective Pass/Fail.
413-3 English Non-Dramatic Literature: The Restoration and Earlier Eighteenth Century. Elective Pass/Fail.
414-3 English Non-Dramatic Literature: The Later Eighteenth Century. Elective Pass/Fail.
417-3 Black Literature. Studies in American and African Black literature, with major emphasis upon contemporary Black expression. Elective Pass/Fail.
421-3 English Romantic Literature. Elective Pass/Fail.
422-3 Victorian Poetry. Victorian poets: Tennyson, Browning, Arnold, and other poets in England. Elective Pass/Fail.
423-3 Modern British Poetry. Elective Pass/Fail.
425-3 Modern Continental Poetry. Representative poems by major 20th century poets of France, Italy, Germany, Spain, Russia, and Greece. Elective Pass/Fail.
426-3 American Poetry to 1900. Trends in American poetry to 1900 with a critical analysis of the achievement of the more important poets. Elective Pass/Fail.

427-3 American Poetry from 1900 to the Present. The more important poets since 1900. Elective Pass/Fail.
436-3 to 9 (3 per topic) Major American Writers. Significant writers of fiction and nonfictional prose from the Puritans to the 20th Century. May be repeated only if topic varies, and with consent of department. Elective Pass/Fail.
438-3 Intellectual Backgrounds of American Literature. The relationship of basic ideas in America to American literature. Elective Pass/Fail.
445-3 Cultural Backgrounds of Western Literature. A study of ancient Greek and Roman literature, Dante's *Divine Comedy,* and Goethe's *Faust,* as to literary type and historical influence on later Western writers. Elective Pass/Fail.
451-3 Eighteenth Century English Fiction. Defoe through Jane Austen. Elective Pass/Fail.
452-3 Nineteenth Century English Fiction. Victorian novel: 1830-1880. Elective Pass/Fail.
453-3 Modern British Fiction. Elective Pass/Fail.
455-3 Modern Continental Fiction. Selected major works of European authors such as Mann, Silone, Camus, Kafka, Malraux, Hesse. Elective Pass/Fail.
458-3 American Fiction to the Twentieth Century. The novel in America from its beginnings to the early 20th Century. Elective Pass/Fail.
459-3 American Fiction of the 20th Century. Trends and techniques in the American novel and short story since 1914. Elective Pass/Fail.
460-3 Elizabethan and Jacobean Drama. Elizabethan drama excluding Shakespeare: such Elizabethan playwrights as Green, Peele, Marlowe, Heywood, Dekker; and Jacobean drama: such Jacobean and Caroline playwrights as Jonson, Webster, Marston, Middleton, Beaumont and Fletcher, Massinger, Ford, Shirley. Elective Pass/Fail.
462-3 English Restoration and 18th Century Drama. After 1660, representative types of plays from Dryden to Sheridan. Elective Pass/Fail.
464-3 Modern British Drama. Elective Pass/Fail.
465-3 Modern Continental Drama. The continental drama of Europe since 1870; representative plays of Scandinavia, Russia, Germany, France, Italy, Spain, and Portugal. Elective Pass/Fail.
468-3 American Drama. The rise of the theater in America, with readings of plays, chiefly modern. Elective Pass/Fail.
471-3 Shakespeare: The Early Plays, Histories, and Comedies.
472-3 Shakespeare: The Major Tragedies, Dark Comedies, and Romances.
473-3 Milton. A reading of a selection of the minor poems, of *Paradise Lost, Paradise Regained, Samson Agonistes,* and the major treatises. Elective Pass/Fail.
481-3 Literature for the Adolescent. Criteria for evaluation of literary materials for junior and senior high school, with emphasis on critical approaches in selection of literature. Elective Pass/Fail.
484-3 Non-Print Media and English. Theory and application of film and other non-print media to the study and teaching of English. Especially emphasized is the relationship between print and non-print communications systems and verbal and non-verbal systems. Prerequisite: consent of instructor.
485-3 Problems in Teaching Composition, Language, Literature and Reading in High School.
491-3 Expository Technical Writing. An all-university course designed to teach advanced academic and professional (non-fictional) writing skills. Prerequisite: GSD 117, 118, or 119, or equivalent. Elective Pass/Fail.
492-3 to 9 Creative Writing: Senior Writing Project. The topic varies among the writing of poetry, drama, or prose. A directed written project will be submitted at the end of the semester in prose, poetry, or drama. A collection of short stories or poems, a novel or play of what instructors consider to be acceptable quality will fulfill the Senior Project requirement. An alternative to the Senior Project may be an internship in a publishing firm if appropriate arrangements can be made by the department. Prerequisite: consent of the instructor. Elective Pass/Fail.
493-3 to 9 (3 per topic) Special Topics in Literature and Language. Topics vary and are announced in advance; both students and faculty suggest ideas. May be repeated as the topic varies. Elective Pass/Fail.
494-3 Literary Criticism Applied to Film. The course will deal with the history and theories of literary criticism. Students will have the opportunity to apply concepts of literary criticism to a series of films which they will view. A $10.00 screening fee is required.
495-3 Literary Criticism. Includes both history of criticism and modern criticism. Open only to seniors and graduate students. Elective Pass/Fail.
497-3 to 9 (3 per topic) Senior Honors Seminar. Topics vary yearly. May be repeated as the topic varies. Prerequisite: departmental approval and undergraduate status.
499-1 to 6 (1 to 3, 1 to 3) Readings in Literature and Language. For English majors only. Prior written departmental approval required. May be repeated as the topic varies, up to the maximum of six semester hours.
500-3 Materials and Methods of Research in Literature.

506-3 to 12 Anglo-Saxon and Medieval Studies.
510-3 to 12 Renaissance Studies.
516-3 to 12 Restoration and 18th Century Studies.
530-3 to 12 19th Century English Literature.
533-3 to 12 Early American Literature.
539-3 to 12 Modern American Literature.
550-3 to 12 Modern British Literature.
579-3 to 12 (3 per topic) Studies in Modern Literature.
581-3 to 9 (3 per topic) Problems in Teaching English.
585-3 Teaching College Composition.
593-3 to 12 Special Topics.
595-1 to 9 Independent Readings.
596-3 to 12 Language Studies.
600-1 to 36 (1 to 16 per semester) Dissertation.
601-1 to 12 per semester Continuing Research.

Environmental Design (Major [Graduate only] Courses)

Courses

411-1 to 6 Workshop. Current topics and problems facing professionals in the field of design. Discussion, reports, lectures, and other methods of analyzing and working on environmental design problems. Emphasis stated in announcement. Maximum of three hours per topic. Prerequisite: senior standing and consent of instructor.
412-1 to 3 Seminar. Special topics and projects considered at stages of design, production, sale, or use. Individual preparations and presentations required. Prerequisite: senior standing or consent of instructor.
413-1 to 4 Readings. Supervised study of selected, relevant literature in area of individual interest related to environmental design. Prerequisite: senior standing or consent of instructor.
414-1 to 6 Special Problems. Directed independent work and study in areas determined by individual needs and interests. Maximum of three hours counted toward master's degree. Prerequisite: senior standing or consent of instructor.
500-3 Research Methods and Problem Solving.
504-3 Systems in Environmental Design.
508-3 Environmental Integration.
510-3 to 6 Practicum.
531-3 Spatial Concepts in Design I.
532-4 Spatial Concepts in Design II.
541-3 Application of Science and Technology to Design.
551-3 Anticipatory Design.
598-1 to 6 Project.
599-1 to 6 Thesis.
601-1 to 12 per semester Continuing Research.

Environmental Studies (Courses)

Courses

200-3 Human Society and the Natural Environment. The interaction of current political, economic, and social forms of human behavior with the natural environment. Emphasis is on the way understandings of environmental processes and the dynamics of American society influence our relations with the natural environment.
201-3 Science, Technology and Societal Values. An examination of general societal values relative to the scientific and technological endeavors of selected ancient, medieval, and modern cultures. Special attention will be given to urban environments as case studies of the interaction of science, technology, and other societal values in these cultures.

Family Economics and Management (Major, Courses)

The family economics and management program is a part of the Division of Human Development. Issues in consumer economics, management, and housing

are of growing interest to consumers, business, and society. This program is concerned with (1) consumer's role and effectiveness in the marketplace, (2) the family's management of limited or restricted resources, and (3) the social and economical aspects of housing. Two specializations, consumer services in business and family services consultant, are offered leading to the Bachelor of Science degree. A minor in consumer studies is also available.

Bachelor of Science Degree, College of Human Resources

General Studies Requirements 45
GSB 202, 203 and 211 required
Requirements for Major in Family Economics and Management 32-46
Family Economics and Management 240, 330, 340, 350, 370, 494-4, 499 20
Specialization Requirements 12-26
See Requirements listed below
Electives 29-43
Total 120

CONSUMER SERVICES IN BUSINESS SPECIALIZATION

This specialization prepares students for professional opportunities in consumer affairs in industry and government. Special emphasis is placed on the role of the consumer in the marketplace and the consumer's relationship to private enterprise and government agencies. A key focus of the program is the application of concepts and the critical analysis of problems and issues affecting the consumer's interests and choices.

Specialization Requirements 12
Family Economics and Management 341, 445, plus three additional hours 9
GSB 346 3
Recommended Electives 43
Accounting 210; Administrative Sciences 170, 301, 304; Clothing and Texiles 352, 104 or 304; Finance 271, 370; Food and Nutrition 100, 256, 321, 335, 356, GSD 110, 153; Journalism 340, 341; Marketing 304, 305, 329; Radio-Television 467; Speech Communication 221; Human Development 400

FAMILY SERVICES CONSULTANT SPECIALIZATION

This specialization is designed to give students a knowledge and understanding of the family's management and allocation of resources. This specialization prepares students for employment in public and private welfare agencies, cooperative extensions and local government and other programs. The low-income family is of particular interest in this specialization. Elective courses should reflect the student's personal employment goals. The program is tailored to meet the theoretical as well as applied concepts in preparing students to serve individuals and families of various ages, physical abilities, and income levels.

Specialization Requirements 23-26
Family Economics and Management 320, 351, 430, 445 10
Child and Family 227, 366 6
Clothing and Textiles 352 3
Food and Nutrition 100 or GSE 236 ..... (2)-3
Social Welfare 383 4
Recommended Electives 29-32
Family Economics and Management 331, 451; GSB 341, 346; GSE 236; Black American Studies 330; Psychology 307; Social Welfare 375, 401, 402, 463; Sociology 302, 335, 435; Human Development 400.

Minor in Consumer Studies

The consumer studies minor offered through the Division of Human Development is designed to give students background in consumer economics and home management. The selection of courses is flexible so that course work can be adapted to the special interests of students with diverse goals and backgrounds.

Required courses: Family Economics and Management 240, 340, and 350; three courses to be selected from the following: Family Economics and Management 320, 330, 331, 341, 351, 370, 445, 451, 494, and GSB 346. A maximum of 6 hours may be selected from Food and Nutrition 100, Child and Family 227, and Journalism.

Courses

See also Human Development for additional 400 and 500-level courses.

240-3 Consumer Resources. An introduction to the resources available to young adults in tackling consumer problems and disputes in housing, automobile care, health services, food purchases, educational expenditures, money management, and other areas of interest to the student. Special attention is given to community and university agencies such as IPIRG, tenant union, chamber of commerce, attorney general's office, and other organizations helpful in resolving problems.

320-2 Household Equipment. Materials, construction, selection, operation, and care of equipment to provide maximum satisfaction to the family are identified. Some emphasis placed on design and use of kitchen and laundry areas.

330-3 Housing. An examination of the physical characteristics of housing as they relate to family needs, wants, and capabilities, as well as the social and economic factors which affect satisfaction associated with family shelter. Field trip.

331-3 Human Environment and Living Space. A study of the living spaces of homes and the relationship of these spaces to the social, economic and aesthetic needs of humans.

340-3 Consumer Problems. Study of family income and expenditure patterns, selection of commodities and services, and an analysis of consumer protection devices.

341-3 Consumers and the Market. The impact of market and governmental activities on consumers' decision-making. Analysis and evaluation of programs designed to inform and to protect consumers.

350-3 Management of Family Resources. A study of factors affecting the management of the home in meeting needs of individuals and creating a satisfying environment for the family. Special consideration given to management of time, money and energy resources.

351-2 Home Management Practicum. Analysis of current management situations and family resources use with practical application of basic principles. Additional costs required. Prerequisite: 350 and consent of chairperson.

370-3 Management for Low-Income Families. Job-oriented course for social welfare careers; selected concepts in family economics and management with application to the low-income family.

380-2 to 6 Special Problems. Selection and investigation of a special problem under personal supervision of departmental faculty, approved by chairperson and instructor. Every semester.

407-1 to 3 Workshop. Designed to aid workers in professions related to use of family resources. Emphasis for each workshop will be stated in the announcement of the course. Every semester.

420-3 Trends in Household Equipment. Design, function, principles of operation, current trends, and ecological problems related to equipment use in household and society are considered. Prerequisite: 320.

430-3 Housing Alternatives. Selected aspects of the housing market and their relationship to changing life styles of households. Structure, operations and performance of the housing market and home building industry, housing finance, and contemporary housing problems and issues are considered. Fall Semester. Prerequisite: 330 or consent of instructor.

445-3 Family and Financial Management. Developments in family financial management and the evaluation of methods and procedures for helping families, with emphasis on the role of the consultant. Case studies and simulation, as well as field problems, are included. Fall semester and alternate summers. Prerequisite: 340 and 350, equivalent, or consent of instructor.

451-3 Household Activity Analysis. A study of work methods and place, as well as the characteristics of the worker, in relation to solving problems of employed, full-time, and handicapped home managers.

480-3 Women in the Home and Labor Market. An evaluation and interpretation of the economic contributions of women in household production and in the labor market.

Related issues such as fair employment practices, role conflicts, and legal issues will be considered.
494-1 to 4 Field Experience. Supervised learning experiences in an acceptable employment area. Every semester. Prerequisite: 370 and consent of chairperson.
499-1 Senior Seminar. A study of contemporary issues in the field of family economics and management including the concerns of new professionals entering the field. Not for graduate credit.
530-3 Societal Factors in Housing.
535-3 Housing Consumption.
540-3 Consumption Trends.
550-3 Advanced Home Management.

Finance (Department, Major, Courses)

The financial implications of decisions in both business and government are daily becoming more complex. Within the firm, financial considerations permeate the concentrations of research, engineering, production, and marketing. Within governmental activities, sophisticated financial techniques are becoming increasingly important. The financial executive thus takes a key role in the successful management of both business and governmental operations.

The finance curriculum offers two areas of specialization to meet the varied interests of students: (1) financial management and (2) financial institutions. The financial management program provides the background for a career in the financial operations of business firms and public institutions. The financial institutions specialization is designed for those interested in the operations of financial intermediaries and financial markets.

Bachelor of Science Degree, College of Business and Administration

General Studies Requirements		45-46
Professional Business Core (See page 74.)[2]		47-48
Requirements for Major in Finance		21
Finance 323, 325, 421	9	
Specialization (Choose one)	12	
Financial Institutions		
Select four: 326, 327, 328, 372, 424, 474, 475, Economics 416		
or		
Select four: 327, 328, 329, 350, 378, 379, 301	12	
Financial Management		
Select one additional upper division accounting course	(3)[1]	
Select three: 327, 372, 474, 475, 480	9	
Electives		5-6
Total		120

[1]Hours shown in parentheses are already included in total hours shown for professional business core.
[2]Courses outside of major should be selected from: Accounting 341, 321, 322, or 365; Economics 315, 330, 340, or 341; Marketing 363 or 390; and Administrative Sciences 350, 352, or 361.

Courses

271-3 Business Law I. Legal problems arising from situations involving contracts and agency and business organizations. Not pass/fail for business majors. Elective Pass/Fail.
300-3 Internship in Finance. Designed to provide an opportunity to relate certain types of work experience to the student's academic program and objectives. Approved internship assignments with cooperating companies in the fields of finance are coordinated by a faculty member. Not repeatable for credit. Prerequisite: consent of department chairperson. Mandatory Pass/Fail.
301-1 to 6 Readings in Finance. Readings in classical and current writing on selected topics in various areas in the field of finance. Prerequisite: consent of department chairperson. Mandatory Pass/Fail.
320-3 Introduction to Business Finance. Principal problems of managing the finance function of a business firm. Emphasis on asset acquisition and management, and financial

structure planning and management. Prerequisite: Accounting 222, Economics 215, Administrative Sciences 208.
323-3 Investments. Survey of the problems and procedures of investment management; types of investment risks; investment problems of the individual as well as the corporation. Prerequisite: Accounting 210 or 221. Elective Pass/Fail.
325-3 Financial Markets. Operations of capital markets. Sources and uses of funds of financial institutions. Prerequisite: Economics 214, 215, Administrative Sciences 208.
326-3 Management of Financial Institutions. Principal policies and problems which confront top management. Emphasis on liquidity, loans, investments, deposits, capital funds, financial statements, organization structure, operations, personnel, cost analysis, and public relations. Prerequisite: 320.
327-3 Insurance. Fundamentals of insurance and risk management including a study of selected insurance contracts and alternative methods of controlling risk exposures. Elective Pass/Fail.
328-3 Real Estate. Problems of real estate ownership, management, financing, and development. Elective Pass/Fail.
329-3 Risk Management and Insurance. The management of pure risk as used in business. Identification, measurement, and alternative methods of dealing with risk: theory and practice. Business insurance including forms, markets, and applications considered both for small and large businesses. Prerequisite: 327 or concurrent enrollment.
350-3 Small Business Financing. Financing problems involved in raising venture capital, debt type funds, expansion funds, and government sponsored funding. Budgeting, working capital management, and fixed asset planning are covered. Prerequisite: Accounting 222 and Economics 215 or consent of department. Elective Pass/Fail.
370-3 The Legal and Social Environment of Business. An examination of the legal, social, and political forces that influence business and businessmen. Particular attention to the role of law as an agency of social control in the modern business society. Elective Pass/Fail.
372-3 Business Law II. Legal problems arising from situations involving sales, commercial paper, secured transactions, and property.
378-3 Real Estate Appraisal. The technique and art of real estate valuation using market comparison, cost, and income approaches. Includes appraisal principles, procedures, and applications. Prerequisite: 328 or consent of instructor.
379-3 Real Estate Law. A survey of legal principles applicable to real property, including the following: conveyances, titles, land descriptions, rights and duties of ownership, and the law of real estate brokerage. Prerequisite: 328 or consent of instructor.
421-3 Management of Business Finance. The principal problems of managing the financial operations of an enterprise. Emphasis upon analysis and solutions of problems pertaining to policy decisions. Prerequisite: 320.
422-3 Acquisitions, Divestments, and Recapitalization. A study of the issues involved in developing financial plans for external growth, divestment, and recapitalization. The case approach is emphasized in the course. Prerequisite: 320.
424-3 Portfolio Theory and Management. Examination of modern concepts relating to management of security portfolios. Topics include security analysis, Markowitz Portfolio Theory, efficient market hypothesis, portfolio performance measurement, risk, and portfolio construction. Prerequisite: 320, 323, or consent of instructor.
474-3 Working Capital Management. Short-term budgeting and forecasting techniques used in business; alternative approaches to working capital management including consideration of certainty, risk and uncertainty; theory and applications in management of cash, marketable securities, accounts receivables, inventory, banking relationships, and short-term sources of funds. Prerequisite: 320.
475-3 Forecasting and Capital Budgeting. Long-term forecasting techniques used in business; alternative approaches to capital structure decisions, cost of capital measurement, and performance measurement for investment decisions including mergers and leasing; explicit consideration of certainty, risk, and uncertainty in investment analysis; theory and applications in private and public sectors. Prerequisite: 320.
476-3 Problems in Labor Law. Social, economic, and legal evaluations of recent labor problems, court decisions, and legislation. Concern is on long-run legislative impact on manpower planning, dispute settlement, and utilization of employment resources. Elective Pass/Fail.
480-3 International Financial Management. Financial behavior of multinational firms. Emphasis on the modification of conventional financial models to incorporate uniquely foreign variables. Prerequisite: 320.

Food and Nutrition (Major, Courses)

The food and nutrition program is a part of the Division of Human Development. Students will be required to take field trips in those courses so designated with

the expenses pro-rated for each student. Appropriate uniforms will be required of all students enrolling in those courses that involve preparation of food.

Bachelor of Science Degree, College of Human Resources

FOOD AND NUTRITION MAJOR – DIETETICS SPECIALIZAION

These courses give a strong scientific education to those interested in becoming dietitians in hospitals, college dormitories, industrial plants, health clinics, laboratories, or public health and welfare organizations. They meet the requirements of the American Dietetics Association.

General Studies Requirements	45
Requirement for Major in Food and Nutrition with Specialization in Dietetics	57-58
GSA 115, 209	(6)
GSB 104 or 203, 202, 211	(9-10)
GSD 107	(4)
GSD 112	2
Electronic Data Processing 107	3
GSD 118	(2)
Administrative Sciences 301 or 304	3
Animal Industries 210	3
Chemistry 140a, b	(4) + 4
Child and Family 237	3
Food and Nutrition 100, 156, 256, 320, 335, 356, 360a, 361, 362, 363, 390, 420 or 490	33
Vocational Education Studies 321 or Psychology 309	2-3
Microbiology 301	4
Electives	17-18
Recommended Electives: GSE 236; Child and Family 227; Food and Nutrition 360b, 372, 373, 421; Microbiology 421, 422; Physiology 300	
Total	120

FOOD AND NUTRITION MAJOR – FOOD AND LODGING SYSTEMS MANAGEMENT SPECIALIZATION

These courses prepare students for positions as food systems managers for restaurants, hotels, school food service, public and private lodging facilities, airlines, industrial feeding, resorts, institutions, hospitals, and clubs. They meet the requirements as set forth by industry, the Council of Hotel, Restaurant, and Institutional Education, and the National Restaurant Association. Through this program in the hospitality field, transfer students from community colleges also will be able to complete their baccalaureate degrees.

General Studies Requirements	45
Requirements for Major in Food and Nutrition with Specialization in Food and Lodging Systems Management	60
GSA 115, 209	(6)
GSB 202	(3)
Accounting 221, 222	6
Administrative Sciences 304, 385	6
Animal Industries 210	3
Chemistry 140a	(4)
Finance 271	3
Food and Nutrition 100, 156, 256, 335, 360a,b, 361, 362, 363, 371, 372, 373	32
Marketing 304	3

Microbiology 301	4
Psychology 320	3
Electives	15
Recommended electives: GSE 236; Chemistry 140b; Child and Family 227, 237; Electronic Data Processing 107; Food and Nutrition 320, 390, 420, 421; Microbiology 421	
Total	120

FOOD AND NUTRITION MAJOR — FOOD AND NUTRITION SCIENCE SPECIALIZATION

These courses give a strong scientific education to those interested in preparing for graduate study in food, nutrition, or related discipline; for research in university, industrial, or governmental laboratories; or for educational and promotional work in industry or public health organizations.

General Studies Requirements	45
Requirements for Major in Food and Nutrition with Specialization in Food and Nutrition Science	50
GSA 115, 209	(6)
GSB 202	(3)
Chemistry 222a,b, 340, 341, 352	(4) + 14
Food and Nutrition 100, 156, 256, 320, 356, 420, 421	20
Mathematics 110a,b	(4) + 1
Microbiology 301, 421, 422	9
Physiology 411a	2
Psychology 211	4
Electives	25
Recommended electives: Chemistry 451a,b; Child and Family 227, 237; Food and Nutrition 490; Health Education 490; Physiology 300, 410a,b, 420.	
Total	120

Courses

See also Human Development for additional 400 and 500-level courses.

100-3 Fundamentals of Nutrition. Emphasis on basic principles of food and nutrition in relation to personal health. Elective Pass/Fail.

156-3 Fundamentals of Foods. An introduction to the basic principles and techniques of food preparation. A charge of $8 will be made for laboratory.

247-3 (1, 1, 1) The School Lunch Program. (a) Food purchasing; (b) quantity food production; and (c) nutrition practices in the school lunchroom. Elective Pass/Fail.

256-3 Science of Food. Application of scientific principles of food preparation. A charge of $8 will be made for laboratory. Prerequisite: 156, Chemistry 140 or equivalent.

320-3 Nutrition. Principles of nutrition in relation to intermediary metabolism and the role of vitamins and minerals. Prerequisite: 100, Chemistry 140 or equivalent.

321-2 Food and Nutrition Demonstration. Emphasis on principles of food and nutrition including food standards and demonstration techniques. Field trip. Prerequisite: 256.

335-2 Meal Management. The selection, purchase, preparation, and service of food with emphasis on time and money management. A charge of $8 will be made for laboratory. Prerequisite: 256.

356-3 Experimental Foods. Experimental approach to the study of factors influencing the behavior of foods. Individual problems. A charge of $8 will be made for laboratory. Prerequisite: 256.

360-6 (3, 3) Quantity Food Production. (a) Use of power equipment, standardized formulas, and techniques of quantity preparation and service of food to large groups; (b) Practical experiences in area food service units. Prerequisite: 256 or equivalent.

361-3 Food Service Organization and Management. Policies, budgets, supervision, and personnel in feeding large groups. Field trip.

362-2 Institution Equipment and Layout. Selection and arrangement of various types of institutional food service equipment, including materials, construction operation, cost, use and care. Field Trip. Prerequisite: 361.

363-2 Food Purchasing for Institutions. Principles and methods of purchasing food in quantity. Field trip. Prerequisite: 361.
371-2 to 6 Field Experience. Opportunity for supervised learning experiences in the student's major. Prerequisite: consent of instructor or chairperson. Elective Pass/Fail.
372-2 Food Systems in the Lodging Industry. Principles and concepts in developing and operating food production systems in the lodging and tourism industry. Prerequisite: Accounting 210 or equivalent.
373-2 Food and Beverage Controls. Duties and responsibilities of the manager in restaurant, catering, hospitals, and club operations. The use of management methods in budgeting, forecasting, controlling costs, and establishing operational policies in food and beverage cost control. Prerequisite: Accounting 210 or equivalent.
390-3 Diet Therapy. Physiological and biochemical changes in certain diseases with emphasis on those involving nutritional therapy. Prerequisite: 320.
410-3 Educational Nutrition. The objective of this course is to provide teachers in public and non-public elementary and secondary schools with the necessary background to incorporate food and nutrition into the educational curriculum.
420-3 Recent Developments in Nutrition. Critical study of current scientific literature in nutrition. Prerequisite: 320 or equivalent. Elective Pass/Fail.
421-2 Recent Trends in Food. Critical study of current scientific literature in food. Prerequisite: 320 or equivalent. Elective Pass/Fail.
480-3 Community Nutrition. Offers a study of the objectives, implementation strategies, and evaluation methods of nutrition programs in communities' health programs. Integration of nutrition into the health care delivery system at local, state, and federal levels is included.
490-3 Nutrition and Growth. The study of human nutrition during each phase of the life cycle, prenatal through geriatric. Students elect at least two phases for in-depth study. A general review of basic nutrition is included. Prerequisite: consent of instructor and department chairperson. Elective Pass/Fail.
520-2 Advanced Nutrition.
556-3 Advanced Experimental Foods.

Foreign Languages and Literatures (Department, Majors, Courses)

Majors and minors are offered in classics (minor: classical civilization), French, German, Russian, and Spanish. Minors are also offered in Chinese, classical civilization, classical Greek, East Asian civilizations, Japanese, and Latin. A student majoring in a foreign language who has taken four years of that language in high school is expected to begin with 300-level courses and to take more upper level courses. Transfer students planning to major in a foreign language must complete a minimum of 12 semester hours of courses in that language at Southern Illinois University at Carbondale. No courses completed with a grade below *C* will be counted toward fulfillment of the requirements for a major. For modern foreign languages, both oral and written language competency must be demonstrated, in separate examinations, no later than two semesters prior to graduation. Every foreign language major must have a departmental advance registration form, signed by the appropriate adviser in the department, before proceeding to college advisement and registration.

Bachelor of Arts Degree, College of Liberal Arts

(WITHOUT SECONDARY SCHOOL TEACHING CERTIFICATE)

General Studies Requirements 45
Supplementary College Requirements (See page 84.) ..... (4) + 8-14

Though not required, a minor of at least 15 hours is recommended. This may be in another foreign language or in any other department within the College of Liberal Arts, but must be approved by the student's departmental adviser; a minor outside the college must be approved by the dean of the college as well.

See the Spanish description for a major program which combines a Spanish major with a minor in secretarial and office specialties.

Requirements for Major in Foreign Language ..... 36[1]
Except for classics, 100-level courses will not count toward the major and at least 12 hours must be in courses on the 400-level.
Electives 25-31
Total 120

[1]See individual language listings for specific requirements.

Bachelor of Arts Degree, College of Liberal Arts

(WITH SECONDARY SCHOOL TEACHING CERTIFICATION)

General Studies Requirements 45
Supplementary College Requirements (See page 84.) ..... (4) + 8-14
Though not required, a minor of at least 15 hours is recommended. This may be in another foreign language or in any other department within the College of Liberal Arts, but must be approved by the student's departmental adviser; a minor outside the college must be approved by the dean of the college as well.
Requirements for Major in Foreign Language ..... 36[1]
Except for classics, 100-level courses will not count toward the major and at least 12 hours must be in courses on the 400-level. Foreign Languages 436 will be one of those courses required on the 400-level for majors in French, German, Russian, and Spanish.
Professional Education Requirements 25
See Teacher Education Program, page 77.
Electives 0-6
Total 120

[1]See individual language listings for specific requirements.

Bachelor of Science Degree, College of Education

For College of Education students majoring in a foreign language, the scheduling of those classes which apply to the major must be done with the appropriate adviser from the Department of Foreign Languages and Literatures.

General Studies Requirements ..... 45[2]
Requirements for Major in Foreign Language ..... 36[1]
Except for classics, 100-level courses will not count toward the major and at least 12 hours must be in courses on the 400-level. Foreign Languages 436 will be one of those courses required on the 400-level for majors in French, German, Russian, and Spanish.
Professional Education Requirements 25
See Teacher Education Program, page 77.
Electives 14
Total 120

[1]See individual language listings for specific requirements.
[2]See catalog section titled Curriculum, Instruction, and Media for specific certification requirements.

Placement. The student who has completed only one year of foreign language in high school normally begins with the first semester course. The student who has successfully completed two years of study in high school of any language currently taught in the department may begin with the second year level without having to take the placement proficiency examination. Those students who have successfully completed three or more years of high school language should consult the departmental adviser for that language.

Minor

A minor in a foreign language is constituted by 18 hours in courses above the first-year level. See individual language listings for specific requirements. State certification requirements, in terms of total semester hours of subject matter courses, may be met in part by counting first-year foreign language courses or by doing additional advanced work.

A minor in classical civilization or East Asian civilizations is constituted by 15 hours of courses to be selected in consultation with the appropriate sectional adviser.

Secondary Concentration for Majors in the College of Business and Administration

The Department of Foreign Languages and Literatures participates with the College of Business and Administration's major program in business and administration by offering a secondary concentration of 20-23 hours for those students who wish to formulate an academic program leading to a career specialization which combines business and a foreign language.

The secondary concentration varies according to the language chosen, but does not normally exceed 23 hours and involves course work from the 100 through the 400 levels. For specific course requirements in the respective languages, interested students should contact advisers in the Department of Foreign Languages and Literatures.

GENERAL FOREIGN LANGUAGE COURSES

Courses

300-3 to 6 (3, 3,) Masterpieces of World Literature. Readings from and discussions of both Western and Eastern literatures, taken from ancient to modern times. Occasional guest lectures by faculty of the department, who speak on their areas of special interest. All readings and lectures in English. Elective Pass/Fail.

436-3 Methods in Teaching Modern Foreign Languages. Survey of general principles of second-language teaching, based upon insights of modern linguistics and learning-psychology. Followed by intensive practical work in classroom and language laboratory with teachers experienced in the student's specific language field. Required of prospective teachers of modern foreign languages in secondary schools. Prerequisite: concurrent or prior enrollment in 300-level course in French, German, Russian, or Spanish. Elective Pass/Fail.

437-1 to 6 Workshop in High School Foreign Language Instruction. Familiarizes high school teachers with recent curricular developments in foreign language teaching with emphasis on practical classroom application of instructional innovations. Prerequisite: 436 or consent of instructor. Elective Pass/Fail.

475A-12 to 34 Full Year Abroad in Austria. Two semesters at the Padagogische Akademie at Baden and at various institutions of higher learning in Vienna. All courses are taught in German. Students may obtain 30 to 34 semester hours of credit in German language, literature and civilization as well as in elective areas of study including music, art, architecture, history, anthropology, political science, physical education, and sociology. Not for graduate credit. Prerequisite: 5 semesters of college German or equivalent with 3.0 grade point average.

506-1 to 4 Research Problems — French.

507-1 to 4 Research Problems — German.

508-1 to 4 Research Problems — Russian.

509-1 to 4 Research Problems — Spanish.

535-2 Critical Theory.

566-2 Bibliography and Research Techniques — French.

567-2 Bibliography and Research Techniques — German.

568-2 Bibliography and Research Techniques — Russian.

569-3 Bibliography and Research Techniques — Spanish.

CHINESE (Minor, Courses)

Minor

Chinese courses above 100 level 18
- 200 level: 201a,b 10
- 300 level 8

Courses

120-8 (4, 4) Elementary Chinese. Emphasis on development of reading, writing, speaking, and listening skills. No previous knowledge of Chinese required. Must be taken in a,b sequence, Elective Pass/Fail.
201-10 (5, 5) Intermediate Chinese. Designed to give the student a review of the Chinese language and its expansion, a reading ability in modern prose, and practice in conversation and composition. Must be taken in a,b sequence. Prerequisite: one year of college Chinese or equivalent. Elective Pass/Fail.
306-2 to 6 (2, 2, 2) Readings in Chinese. Readings in the contemporary Chinese such as the adaptations of the writings of Tsau Yu, Lau she, Hu shih, and Lu Synn.
410-3 The Linguistic Structure of Chinese. (Same as Linguistics 411.) Phonology and syntax of Mandarin Chinese. Principal phonological features of major Chinese dialects. Special emphasis on the contrastive analysis between Mandarin Chinese and English. Theoretical implications of Chinese syntax for current linguistic theories. Prerequisite: one year of Chinese or introduction to linguistics. Elective Pass/Fail.

CLASSICS (Major, Minors [Greek, Latin, Classical Civilization], Courses)

Bachelor of Arts Degree, College of Liberal Arts

Classics courses and courses from participating departments 36
Original Greek and Latin courses, two years of one language or one year of each 12-16
Electives: additional courses in Greek, Latin, or classical civilization (225, 270, 271, 310, 332, 405, 406, 441, 496)[1]; Classics 396; GSC 231, 232, 330; courses from participating departments (limited to 12 hours): Anthropology 304; Art 307; History 310, 313; Philosophy 304, 470, 471; Political Science 404 20-24

Minor in Greek

Greek courses above 100-level 18

Minor in Latin

Latin courses above 100-level (288 may not be counted); 320 recommended 18

Minor in Classical Civilization

Courses to be selected in consultation with adviser from Greek, Latin, or classical civilization (225, 270, 271, 310, 332, 405, 406, 441, 496)[1]; courses also recommended: GSC 231, 232, 330; and either Classics 100 or 101 ..... 15[2]

[1]Classical civilization includes all classics courses above the 100-level for which no knowledge of Greek or Latin is required.
[2]18 hours are required for state certification.

Courses

100-2 Greek and Latin in English. Vocabulary building through roots, prefixes, and suffixes. Recommended for students interested in the origin of English words. No knowledge of Greek or Latin is required. Elective Pass/Fail.
101-3 Scientific Terminology: Greek and Latin Derivatives. Analysis of common vocabulary and of basic scientific terminology into its component prefixes, roots, and suffixes.

The course concentrates on methods for recognizing and understanding polysyllabic technical terms. No prerequisite required. No knowledge of Greek or Latin is required.

130-8 (4, 4) Elementary Classical Greek. The object of this course is to give students a firm foundation in the grammar, vocabulary, and syntax of ancient Greek in order to enable them to progress to the reading of the Greek classics and New Testament. Must be taken in a,b sequence. No previous knowledge of Greek required. Elective Pass/Fail.

133-8 (4, 4) Elementary Latin. The object of this course is to give students a firm foundation in the grammar, vocabulary, and syntax of Latin in order to enable them to progress to the reading of the Latin classics. No previous knowledge of Latin required. Must be taken in a,b sequence. Elective Pass/Fail.

201-6 (3, 3) Intermediate Greek. Reading and interpretation of selected works by authors such as Xenophon, Plato, Homer, and the New Testament writers. Must be taken in a,b sequence. Prerequisite: 130 or equivalent. Elective Pass/Fail.

202-6 (3, 3) Intermediate Latin. Reading from authors such as Livy, Caesar, and Cicero. Must be taken in a,b sequence. Prerequisite: 133 or two years of high school Latin or equivalent. Elective Pass/Fail.

225-3 Athletics, Sports, and Games in the Ancient World. The Olympics and other great games of ancient Greece; games and sporting events of ancient Rome; differences between ancient and modern attitudes about "sport" and sports. No knowledge of Greek or Latin is required. Elective Pass/Fail.

270-3 Greek Civilization. An introduction to the life and culture of ancient Greece. Greek contributions to western civilization in literature, art, history, and philosophy. No knowledge of Greek or Latin is required. Elective Pass/Fail.

271-3 Roman Civilization. An introduction to the life and culture of ancient Rome. Rome's function in assimilating, transforming and passing on the Greek literary and intellectual achievements. Rome's own contributions in the political, social, and cultural spheres. No knowledge of Greek or Latin is required. Elective Pass/Fail.

288-6 (3, 3) Latin as a Research Tool. Intensive course designed to impart grammar and vocabulary necessary for a reading knowledge of the language. Also to serve as a review for people who have had some Latin. Development of interpretive and translation skills in student's own discipline. With consent of student's department, 288b satisfies the graduate school requirement for foreign language as a research tool. Open to graduates and undergraduates.

310-3 Ancient Art and Archaeology. Survey of the physical remains of ancient civilizations of the Aegean and Mediterranean areas. Special attention to the artistic and architectural achievements of the Greeks and Romans. Occasionally offered overseas. No knowledge of Greek or Latin is required. Elective Pass/Fail.

320-3 Latin Composition. The object of this course is to understand and appreciate the structure and style of Latin through composition. Prerequisite: 202 or equivalent. Elective Pass/Fail.

332-3 Classical Drama. Reading several tragedies and comedies of the Greeks and Romans both with a view to enjoying them as timeless works of art and with a view to understanding how they grew out of the societies of classical Greece and Rome. No knowledge of Greek or Latin is required. Elective Pass/Fail.

380-2 to 4 Greek Prose Authors in Greek. Reading of Greek prose. Selections from the historians (Herodotus, Thucydides), orators (Lysias, Demosthenes, et al.) philosophers (Plato, Aristotle), or epistles of the New Testament. Prerequisite: 201 or equivalent. Elective Pass/Fail.

381-3 Homeric Epic in Greek. Reading and interpretation of selections from the *Iliad* or the *Odyssey*. Homeric grammar and metrics, epic diction, the conventions of oral poetry. Prerequisite: 201 or equivalent. Elective Pass/Fail.

382-3 Greek Drama in Greek. Reading and interpretation of selections from the works of the classical Greek dramatists: Aeschylus, Sophocles, Euripides, and Aristophanes. Stage conventions of the Attic theater. Prerequisite: 201 or equivalent. Elective Pass/Fail.

383-3 Early Greek Lyric in Greek. Reading and interpretation of poets of the Archaic Age such as Alcaeus, Sappho, and Pindar. Socio-political background, dialects, meters. Prerequisite: 201 or equivalent. Elective Pass/Fail.

384-3 Roman Philosophy in Latin. Selections from Cicero, Lucretius, and Seneca the Younger. Recommended for students with double majors in philosophy and classics. Prerequisite: 202 or equivalent. Elective Pass/Fail.

385-3 Medieval Latin. Selected readings from Latin authors of the Middle Ages. Prerequisite: 202 or equivalent. Elective Pass/Fail.

386-3 Roman Historians in Latin. Selections from Caesar, Sallust, Livy, Tacitus, and Suetonius. Recommended for students with double majors in history and classics. Prerequisite: 202 or equivalent. Elective Pass/Fail.

387-3 Vergil in Latin. Selections from Vergil's major works, the *Aeneid, Eclogues,* etc. Prerequisite: 202 or equivalent. Elective Pass/Fail.

388-3 Lyric and Satire in Latin. Reading and interpretation of works by poets such as

Catullus, Horace, Juvenal, and Persius. Study of either the lyric or satiric genre. Prerequisite: 202 or equivalent. Elective Pass/Fail.
389-3 Myth, Fable, and Story in Latin. Selections from works such as the *Metamorphoses* of Ovid, the *Fables* of Phaedrus, and *Satyricon* of Petronius. Prerequisite: 202 or equivalent. Elective Pass/Fail.
390-3 Roman Comedy in Latin. Reading and interpretation of selections from play(s) by Plautus and Terence. Prerequisite: 202 or equivalent. Elective Pass/Fail.
396-3 Honors in Classics. Readings of classical literature, in Greek or Latin or English translation, for junior or senior majors. The course requires preparation of an honors paper or comparable project, and satisfies one of the requirements for graduation with honors in classics. Prerequisite: 3.75 grade average in classics courses and consent of classics faculty.
405-2 Greek Literature in Translation. Reading and analysis of selected classical Greek author(s), genre(s), theme(s), such as the role of woman, the social life of the ancient Greeks, etc. Students taking the course for graduate credit will do a critical study of one aspect. No knowledge of Greek or Latin is required. Elective Pass/Fail.
406-2 Latin Literature in Translation. Reading and analysis of selected Roman author(s), genre(s), theme(s). Students taking the course for graduate credit will do a critical study of one aspect. No knowledge of Greek or Latin is required. Elective Pass/Fail.
415-1 to 9 (1 to 3 per topic) Readings from Greek Authors in Greek. Reading and interpretation of works of Greek literature at an advanced level. Prerequisite: two semesters of 300-level Greek or consent of instructor.
416-1 to 9 (1 to 3 per topic) Readings from Latin Authors in Latin. Reading and interpretation of works of Latin literature at an advanced level. Prerequisite: two semesters of 300-level Latin or consent of instructor.
441-3 Themes in Greek Tragedies and the New Testament. (Same as Religious Studies 441.) Greek tragedies and New Testament passages from the Synoptic Gospels and the Letters of Paul showing similarities and differences in their treatment of such themes as freedom, law, love, and justice. Not for graduate credit. No knowledge of Greek or Latin is required. Prerequisite: 270, 332 or 405 or GSC 330, or 231 and GSC 217 or consent of instructor. Elective Pass/Fail.
496-2 to 8 (2 to 4, 2 to 4) Independent Study in Classics Program. (Same as Anthropology 376, History 396, Philosophy 496, Religious Studies 496.) Normally taken in course of junior and senior years to a total of at least four hours under a professor participating in classics program (anthropology, classics, history, philosophy, or religious studies). At end of advanced level work, student will submit a research paper. Not for graduate credit. No knowledge of Greek or Latin is required. Prerequisite: consent of instructor and classics section head. Elective Pass/Fail.

EAST ASIA (Courses)

300-3 Masterpieces of Oriental Literatures. Lectures and collateral readings of representative oriental literary works in English translation with special attention to literary forms and thought from ancient to contemporary China and Japan. No knowledge of an oriental language required. Elective Pass/Fail.
370-1 to 6 (1 to 3 per topic) Topics in East Asian Cultural Traditions. Selected topics in East Asian cultural traditions. May be repeated to a total of six hours with the consent of the department. No prerequisite. Taught in English. Elective Pass/Fail.

EAST ASIAN CIVILIZATIONS (Minor)

Minor

Courses in Chinese and Japanese selected in consultation with adviser 15[1]

FRENCH (Major, Minor, Courses)

Bachelor of Arts Degree, College of Liberal Arts

French courses above 100 level 36
- 200 level: 201a,b (220 recommended; does not usually count toward major or minor) 8
- 300 level: 320, plus any combination of 300 level courses 14
- 400 level: any combination of 400 level courses 14
  (At least one literature course must be taken at either the 300 or the 400 level.)

[1]18 hours is required for State certification.

Bachelor of Science Degree, College of Education, or Bachelor of Arts Degree, College of Liberal Arts (with secondary school certification)

French courses above 100 level 36
- 200 level: 201 a,b (220 recommended; does not usually count toward major or minor) . . . . . 8[1]
- 300 level: 320, plus any combination of 300 level courses 14
- 400 level: Foreign Languages and Literatures 436, plus any combination of 400 level courses 14
- (At least one literature course must be taken at either the 300 or the 400 level.)

Minor

French courses above 100 level 18
- 200 level: 201a,b . . . . . 8[1]
- 300 level: 320, plus any combination of 300 level courses 10

[1]With the approval of the French section, one semester of 220 may be counted toward the major or minor, in which case the 400-level requirements would be reduced to 12 hours for the major and the 300-level course requirements would be reduced to 8 hours for a minor.

Courses

123-8 (4, 4) Elementary French. The basic skills of listening, speaking, reading, and writing. No previous knowledge of French is required. Must be taken in a,b sequence. Elective Pass/Fail.

124-1 Elementary French Conversation. Conversation skills for beginners. Special emphasis on tourist vocabulary. Prerequisite: concurrent enrollment in 123B or consent of instructor. Elective Pass/Fail.

190-5 Review of Elementary French. A review course on first year level for students who have had two or more years of high school French or equivalent. Elective Pass/Fail.

201-8 (4, 4) Intermediate French. Grammar review, translation, oral practice, written composition, and development of reading skills. Reading of material on contemporary France and selections from French literature. Prerequisite: 123, 190, or two years of high school French, or equivalent. Elective Pass/Fail.

220-2 to 4 (2, 2) Intermediate French Conversation. Development of oral skills on the intermediate level. Not usually accepted toward major requirement. Prerequisite: 123b or 190 or equivalent. Elective Pass/Fail.

288-6 (3, 3) French as a Research Tool. Reading of French texts with emphasis on grammar as a tool for reading comprehension; development of reading skills in various fields: humanities, social studies, science; development of interpretive and translation skills in student's own discipline. With consent of student's department, 288b satisfies the graduate school requirement for foreign language as a research tool. Students who have had one year of college French or the equivalent would normally enroll in 288b. This course is intended for graduate students. Undergraduates who wish to enroll are encouraged to consult with the instructor of the course.

300-3 Image of Women in French Literature. Female characters as they are represented in French literature through the centuries; the development of a psychological and sociological point of view of women through the examination of women's roles in French literature. Conducted in English. Elective Pass/Fail.

310-4 Development of French Literature from the Middle Ages Through the Eighteenth Century. Major literary movements and authors as exemplified in representative works. Elective Pass/Fail.

311-3 Modern French Literature. The themes, structures, and language of some major works of poets, novelists, and playwrights from the early Romantics through the Existentialists and Robbe-Grillet. Elective Pass/Fail.

320-4 Advanced Language Skills. A review of grammar and syntax with extensive practice in translation and composition. Reading of French texts as basis for discussion and papers. Prerequisite: 201b or equivalent. Elective Pass/Fail.

321-3 Advanced Conversation. Improvement of self-expression and aural comprehension. Expansion of vocabulary and idioms emphasized through classroom and language laboratory work. Highly recommended for those students with a major in French. Prerequisite: 201b, 220b. Elective Pass/Fail.

330-3 Introduction to Literary Analysis. Examination of the basic elements of literary expression; practice of rudimentary *explications de textes.* Selections for study are taken

from important works of French literature and analyses are directed toward developing the students' artistic sensibilities as well as improving their analytical skills. Elective Pass/Fail.

350-2 French Phonetics. Introduction to French phonemics and phonetics involving production of French sounds and English interference. Emphasis on corrective pronunciation. Elective Pass/Fail.

370-3 Modern France. The main philosophical, political, and artistic trends within the nineteenth and twentieth centuries which have contributed to the formation of present day France. Prerequisite: 320 or 321. Elective Pass/Fail.

375-1 to 6 Travel-Study in France. Travel-Study project, planned under supervision of French faculty and carried out in France. Prerequisite: 201b, and consent of faculty. Elective Pass/Fail.

390-1 to 6 Independent Study in French. Individual exploration of some question, author, or theme of significance within the field of French literature, language, or culture. Prerequisite: consent of instructor.

410-3 Individualized Language Study. Treatment of problems concerning grammar, idioms, vocabulary, and other language skills in units tailored to the particular needs of the individual advanced level students enrolled in the course. Exercises in writing, understanding, and speaking will be offered with emphasis placed on the active use of the language which the student may need in present or future activities or careers. Elective Pass/Fail.

411-3 Contrastive Analysis: French and English. Study of the phonology, morphology, and syntax of modern spoken and written French, stressing interference areas for English speakers in learning French. Prerequisite: 320 and 321 or equivalent. Elective Pass/Fail.

412-3 History of the French Language. A survey of the phonological and morphological changes from Latin through Vulgar Latin and Old French to Modern French; study of an original Old French text, such as the *Chanson de Roland* or a romance of Chretien de Troyes. Knowledge of Latin not required. Elective Pass/Fail.

415-3 Literary Stylistics. A study of the aesthetics and theory of French Literary expression. Disciplined stylistic analyses of excerpts from representative works of great French authors. Appreciation of distinctive qualities of each writer's genius. Consideration is given to various stylistic methods. Elective Pass/Fail.

419-3 Romance Philology. (Same as Spanish 419.) Historical and comparative study of the major Romance languages: their phonology, morphology, and syntax. Elective Pass/Fail.

420-3 Medieval and Renaissance Literature. Study of the origins of French literature emphasizing the *Chanson de Roland, Tristan,* other courtly romances, and the lyric poetry of Villon, culminating with an examination of the development of the humanistic ideas and ideals of the French Renaissance. Elective Pass/Fail.

430-4 Baroque and Classicism. An in-depth examination of artistic and social writings of baroque and classical literary figures such as Corneille, Racine, Moliere, La Fontaine, Descartes, Pascal, Mme de LaFayette, La Bruyere, and La Rochefoucauld. Discussion, reports, papers. Elective Pass/Fail.

435-3 Business French. An overview of the French economy through readings in French newspapers and magazines. Grammar review and study of business vocabulary and practices through translation, oral presentations, and commercial correspondence. Prerequisite: 320 or equivalent.

440-3 Literature of the Enlightenment. Study and discussion of the novel, theater, and philosophic writing of 18th century France as literature and as expressions of the Enlightenment. Major attention given to Montesquieu, Voltaire, Diderot, and Rousseau. Elective Pass/Fail.

450-4 Literary Movements of the 19th Century. Romanticism, Realism, and Naturalism in the novel and theater followed by an examination of the reaction to these movements and of the influence of symbolism. Elective Pass/Fail.

460-4 Studies in Literature of the 20th Century. Examination of the major themes, forms, techniques, and style of novelists from Gide and Proust to Robbe-Grillet and dramatists from Giraudoux to Ionesco and Beckett. Elective Pass/Fail.

470-3 Backgrounds of French Civilization. A study of the events, figures, and movements in France which have influenced its culture and civilization. Elective Pass/Fail.

475-3 to 6 Travel-Study in France. Travel-study project, planned under supervision of French faculty and carried out in France. Amount of credit depending on scope of study. Prerequisite: 320 or equivalent. Elective Pass/Fail.

476-3 to 6 (3, 3) French Civilization Outside of France. Encompasses a number of individual courses, each of which focuses on one of the many areas of the world in which France has played a significant role. Manifestations of French culture and civilization, past and present, are studied and evaluated within the framework of an evolving local and global historic context.

490-1 to 6 Advanced Independent Study in French. Individual exploration of some question, author, or theme of significance within the field of French literature, language or culture. Prerequisite: 320, 321 and consent of instructor.

501-2 to 6 Studies on a Selected Topic or Author.
510-3 Masterpieces of French Literature.
520-1 to 3 Literature of the Middle Ages.
525-3 Advanced Language Skills.
530-1 to 3 Literature of the Renaissance.
536-1 Teaching French at the College Level.
539-1 to 3 Literature of the 17th Century.
540-1 to 3 Literature of the 18th Century.
550-1 to 3 Literature of the 19th Century.
560-1 to 3 Literature of the 20th Century.
599-1 to 6 Thesis.
601-1 to 12 per semester Continuing Research.

GERMAN (Major, Minor, Courses)

At least one course in the history of Germany or Central Europe is recommended for all students majoring in German. Credit must be earned in at least one regularly scheduled 400-level course taken on the Southern Illinois University at Carbondale campus.

Bachelor of Arts Degree, College of Liberal Arts

Courses above 100 level 36
- 200 level: 201a,b 8
- 300 level: 320-6, plus any combination of 300-level courses 12
- 400 level: Any combination of 400 level courses 12

German electives (300 or 400 level) 4
- (At least one literature course must be taken at either the 300 or the 400 level.)

Bachelor of Science Degree, College of Education or Bachelor of Arts Degree, College of Liberal Arts (with secondary school certification)

Courses above 100 level 36
- 200 level: 201a,b 8
- 300 level: 320-6, plus any combination of 300-level courses 12
- 400 level: Foreign Languages and Literatures 436, plus any combination of 400 level courses 12

German electives (300 or 400 level) 4
- (At least one literature course must be taken at either the 300 or the 400 level.)

Minor

Courses above 100 level 18
- 200 level: 201a,b 8
- 300 level: 320a,b 6
- German electives (300 or 400 level including at least one regularly scheduled course) 4

Courses

126-8 (4, 4) Elementary German. The course emphasizes German culture as it is expressed in the language. It concentrates on the four language skills of understanding, speaking, reading, and writing. No previous knowledge of German required. Must be taken in a,b sequence. Purchase of a workbook is required. Elective Pass/Fail.
127-2 (1, 1) Elementary German Conversation. Conversation skills for beginners making use of modern media. No previous knowledge of German required. Must be taken in a,b sequence or as companion course to 126a or b or with consent of instructor. Elective Pass/Fail.
201-8 (4, 4) Intermediate German. Intensification of the four basic language skills. Study of the culture and everyday living situations in the German-speaking countries. Must be taken in a,b sequence. Prerequisite: 126b or equivalent. Elective Pass/Fail.
201C-3 German Language Workshop. This intensive (15 days), total-immersion (exclusively in German) program combines formal classwork with informal seminars, group activities

(folk singing, skits, play readings, films, talent shows, etc.) and individual assignments (daily compositions, diaries). Prerequisite: 201b or consent of instructor.

202-2 (1, 1) Intermediate German Conversation. Designed to improve the student's speaking ability through use of modern media. Must be taken in a,b sequence or as companion course to 201a or b or with consent of instructor. Prerequisite: 126b or equivalent. Elective Pass/Fail.

230-3 Nordic Mythology. An introduction to the study of the mythology and culture of the Germanic, and especially the Scandinavian peoples during the time of the Vikings. Emphasis on the Poetic Edda and Prose Edda; also historical and archaeological material. All readings in translation. Elective Pass/Fail.

288-6 (3, 3) German as a Research Tool. **(a)** Practice in recognizing and interpreting most frequent grammatical patterns and basic vocabulary necessary for reading knowledge of German; **(b)** concentrated training in translation of specialized literature in student's discipline. With consent of student's department, 288b satisfies the graduate school requirement for foreign language as a research tool. Students who have had one year of college German or the equivalent would normally enroll in 288b. This course is intended for graduate students. Undergraduates who wish to enroll are encouraged to consult with the instructor of the course.

300-3 German Literature in Translation. Readings of German authors of particular interest to American students, such as Hesse, Kafka, Brecht, and Mann. Elective Pass/Fail.

320-6 (3, 3) Advanced Composition and Conversation. Devoted to increasing the student's command of German. Intensive practice in oral and written composition. Beginning with rather controlled subject matter and progressing to a wider choice of topics. Conducted primarily in German. To be taken in sequence. Required for majors. Prerequisite: 201b or equivalent. Elective Pass/Fail.

321-2 (1, 1) Small Group Conversation. Improvement of self-expression and aural comprehension. Expansion of vocabulary and idioms through active participation in small-group informal conversation. Guests are encouraged to attend. Prerequisite: 201b or equivalent. Mandatory Pass/Fail.

330-3 Introduction to German Literature. Survey of masterpieces of German literature including works from various genres and from the major periods of German literary history. Student projects will include demonstration of various techniques of literary criticism. Course is taught primarily in German. Prerequisite: 201b or equivalent. Elective Pass/Fail.

331-3 Faust, Part I and II. Study of both parts of Goethe's *Faust* as a single poetic drama. Close reading of some passages for qualities of literary form and other passages for statements about the human condition in western civilization. Taught in English, readings in bilingual edition. May count toward German major only with consent of instructor. Elective Pass/Fail.

370-3 Contemporary Germany. Study of life in Germany since World War II including the customs and habits, thoughts and beliefs, as well as the broad complex of traditions basic to everyday life. Readings are in English and include literary and journalistic materials as well as written and filmed documentaries. No prerequisite. May count toward German major only with consent of instructor. Offered alternate years only. Elective Pass/Fail.

380-3 Modern German Prose. Introduction to outstanding German prose literature of the 19th and 20th centuries. Attention to historical and social backgrounds. Extensive readings supplemented by lectures and discussions. Conducted in German. Prerequisite: 201b or equivalent. Elective Pass/Fail.

401-3 Early German Literature. Survey of medieval culture and literature. Reading of selections and discussion of major works of the Middle Ages in their esthetic and historical contexts. Conducted in German. Offered in alternate years only. Prerequisite: 330 or 380. Elective Pass/Fail.

412-3 Linguistic Structure of Modern German. The descriptive study of phonology, grammatical structure, and vocabulary of modern German with consideration of its structural differences from English and application to teaching. Appropriate for students with at least two years of German. Conducted in English. Elective Pass/Fail.

413-3 History of the German Language. Development of German from its Indo-European origin to the present in political and cultural context. The main linguistic aspects dealt with are lexical and semantic changes. Appropriate for students with at least two years of German. Conducted in English. Elective Pass/Fail.

416-3 Individualized Language Study. Designed to improve language skills beyond the level of 320. Treatment of problems concerning grammar, idioms, vocabulary, and other language skills tailored to the particular needs of advanced students. Emphasis is placed on the active use of the language which the student may need in present or future activities or careers. Prerequisite: 320b or equivalent. Elective Pass/Fail.

445-3 Age of Goethe. Intensive and extensive study of the authors, works, and movements of the period spanned by Goethe's life (1749-1832). Lectures, reports. Conducted in German. Prerequisite: 330 or consent of instructor. Elective Pass/Fail.

460-3 East and West of the Wall. Literature of the two Germanies. Course will trace the beginnings and the establishment of the two German literatures after World War II. Conducted in German. Prerequisite: 330 or 380. Elective Pass/Fail.

465-3 German Theater Today. Plays performed in German-speaking countries at the present. The role of the theater in German culture. Conducted in German. Prerequisite: 330 or equivalent. Elective Pass/Fail.
485-2 German Lyric Poetry. Development of German lyric poetry from Klopstock and Burger to the present. Conducted in German. Prerequisite: 330 or equivalent. Elective Pass/Fail.
490-1 to 6 (1 to 3, 1 to 3) Independent Study in German. Project-study under supervision of German faculty. Amount of credit depends on scope of study. May be repeated as the topic varies, up to the maximum of six semester hours. Prerequisite: senior or graduate standing and approval of supervising instructor.
493-3 to 9 (3 per topic) Seminars in Special Topics in Literature and Language. Topics vary and are announced in advance; both students and faculty suggest ideas. May be repeated as the topic varies. Primarily for undergraduates. Prerequisite: consent of instructor. Elective Pass/Fail.
501-2 to 4 (2, 2) Seminar in Literature, Culture, or Folklore.
502-2 to 4 (2, 2) Seminar in Germanic Linguistics.
510-3 Middle High German.
512-2 Historical Germanic Dialects.
536-1 Teaching German at the College Level.
560-3 German Literature at the Turn of the 20th Century.
561-3 Modern German Novel.
586-3 Das Komische.
590-3 to 9 (3 per topic) Independent Study on Special Topics in Literature and Language.
599-1 to 6 Thesis.
601-1 to 12 per semester Continuing Research.

GREEK (Minor, Courses)

(SEE CLASSICS)

JAPANESE (Minor, Courses)

Minor

Japanese courses above 100 level 18
200 level: 201a,b 10
300 level 8

Courses

131-8 (4, 4) Elementary Japanese. Emphasis on basic skills of listening, speaking, reading, and writing. No previous knowledge of Japanese is required. Must be taken in a,b sequence. Elective Pass/Fail.
201-10 (5, 5) Intermediate Japanese. Development of listening, speaking, reading, and writing skills on the intermediate level, with special attention to cultural readings. Must be taken in a,b sequence. Prerequisite: 131b. Elective Pass/Fail.
306-2 to 6 (2, 2, 2) Individual Readings in Japanese. Readings in modern Japanese fiction and non-literary prose. Designed to give students with some Japanese background proficiency in reading modern Japanese. Exact subject matter will depend on individual student's needs. Prerequisite: 201b.
410-3 The Linguistic Structure of Japanese (Same as Linguistics 412.) Phonology and syntax of the Standard Japanese. Special emphasis on the contrastive analysis between Japanese and English. Typological similarities and lexical borrowings between Chinese and Japanese. Prerequisite: one year of Japanese or introduction to linguistics. Elective Pass/Fail.

LATIN (Minor, Courses)

(SEE CLASSICS)

RUSSIAN (Major, Minor, Courses)

Bachelor of Arts Degree, College of Liberal Arts

Russian courses above 100 level 36
200 level: 201a,b 8
300 level: Any combination of 300 level courses 12

400 level: Any combination of 400 level courses including at least one literature course 12
Russian electives (300 or 400 level) 4

Bachelor of Science Degree, College of Education or Bachelor of Arts Degree, College of Liberal Arts (with secondary school certification)

Russian courses above 100 level 36
200 level: 201a,b 8
300 level: Any combination of 300 level courses 12
400 level: Any combination of 400 level courses including at least one literature course and Foreign Languages and Literature 436 12
Russian electives (300 or 400 level) 4

Minor

Russian courses above 100 level 18
200 level: 201a,b or 278a,b[1] 6-8
300 level: Any combination of 300 or some 400 level courses 10-12

[1]278, Translation Techniques, is designed for students majoring in fields other than Russian.

Courses

136-8 (4, 4) Elementary Russian. Emphasis on basic skills of listening, speaking, reading, and writing. No previous knowledge of Russian required. Must be taken in a,b sequence. Elective Pass/Fail.
201-8 (4, 4) Intermediate Russian. Continuation of the language structure with practice in oral and written Russian. Must be taken in a,b sequence. Prerequisite: 136 or two years of high school Russian or equivalent. Elective Pass/Fail.
278-6 (3, 3) Translation Techniques. Introduction to translation of material from humanities, social sciences, and sciences, accompanied by grammatical structure; discussion of techniques, procedures, methodology, and art of translation. The course is also designed for students majoring in departments other than foreign languages and literatures. Must be taken in a,b sequence. Prerequisite: 136b or two years of high school Russian or equivalent. Elective Pass/Fail.
288-6 (3, 3) Russian as a Research Tool. Reading of Russian articles with emphasis on grammar as a tool for reading comprehension; development of reading skills in various fields: humanities, business and administration, social studies, science; development of interpretative and translation skills in student's own discipline. With consent of student's department, 288b satisfies the graduate school requirement for foreign language as a research tool. Students who have had one year of college Russian or the equivalent would normally enroll in 288b. This course is intended for graduate students. Undergraduates who wish to enroll are encouraged to consult with the instructor of the course.
305-4 Advanced Conversation and Composition. Improvement of self-expression, oral and written comprehension, free composition and conversation; readings based on the history of Russia, as well as readings of magazine and newspaper articles. Prerequisite: 201 or equivalent. Elective Pass/Fail.
306-3 Intermediate Readings in Russian. Designed to improve skills in reading selections from Russian prose. Prerequisite: 201 or equivalent. Elective Pass/Fail.
320-3 Advanced Language Skills. A review of fine points of grammar and polishing of student's syntax. Prerequisite: 201 or equivalent. Elective Pass/Fail.
330-4 Introduction to Russian Literature. Reading and analysis of the texts selected from Russian literature.
350-3 Russian Phonetics. Analysis of the sounds of Russian and their manner of production; intonation and stress; levels of speech, oral practice. Prerequisite: 201b. Elective Pass/Fail.
375-3 to 6 Travel Study in USSR. Supervised travel-study program in the USSR. Prerequisite: 201 or equivalent. Elective Pass/Fail.
411-3 Russian Stylistics. Writing styles in Russian and its application to the development of skill in written expression. Elective Pass/Fail.
415-3 Russian Linguistic Structure. Structural analysis of present-day Russian with special attention to morphology and syntax. Elective Pass/Fail.
430-4 Business Russian. A study of the style of commercial language and its application to the development of skill in business correspondence, such as: inquiries, offers, orders,

contracts, agreements, as well as documents concerning transport, insurance, and customs. Prerequisite: 201 or 278 or equivalent. Elective Pass/Fail.
465-3 Soviet Russian Literature. Major fiction writers and literary trends since 1917. Lectures, readings, and reports. Elective Pass/Fail.
470-3 Soviet Civilization. Soviet culture and civilization is studied primarily through literary works, journalistic materials, and excerpts from non-literary works as general background reading. Lectures are illustrated with maps, slides, films and art works. Taught in English. Readings are in English and in bi-lingual edition. No prerequisite: May count toward Russian major with consent of graduate adviser. Elective Pass/Fail.
475-2 to 3 Travel-Study in USSR. Specialized course comprising part of the travel-study program in the Union of Soviet Socialistic Republics. Prerequisite: 201 or equivalent. Elective Pass/Fail.
480-4 Russian Realism. Authors in 19th century Russian literature. Special attention to stylistic devices. Lectures, readings, and individual class reports. Elective Pass/Fail.
485-3 Russian Poetry. A study of literary trends and representative works of Russian poets. Elective Pass/Fail.
490-1 to 3 Independent Study. Directed independent study in a selected area. Prerequisite: consent of the Russian section head. Elective Pass/Fail.
501-2 Seminar on a Selected Russian Author.
502-2 Seminar in Contemporary Russian Literature.
514-3 History of the Russian Language.
599-1 to 6 Thesis.
601-1 to 12 per semester Continuing Research.

SPANISH (Major, Minor, Courses)

Bachelor of Arts Degree, College of Liberal Arts

Spanish courses above 100 level	36
200 level: 201a,b or 275	5-6
300 level: 306 and 320, plus any combination of 300 level courses which includes a literature course	12
400 level: 415, plus any combination of 400 level courses	12
Spanish electives (only one semester of 220 may be counted toward the major)	6-7

Bachelor of Arts Degree, College of Liberal Arts (with a minor in secretarial and office specialities, for bilingual secretaries)

Spanish courses above 100 level	36
200 level: 201a,b or 275	5-6
300 level: 306 and 320, plus any combination of 300 level courses	12
400 level: 412, plus any combination of 400 level courses	12
Spanish electives	6-7

See secretarial and office specialties for a description of minor requirements.

Bachelor of Science Degree, College of Education or Bachelor of Arts Degree, College of Liberal Arts (with secondary school certification)

Spanish courses above 100 level	36
200 level: 201a,b or 275	5-6
300 level: 306 and 320, plus any combination of 300 level courses which includes a literature course	12
400 level: 415, Foreign Language and Literatures 436, plus any combination of 400 level courses	12
Spanish electives (only one semester of 220 may be counted toward the major)	6-7

Minor

Spanish courses above 100 level	18
200 level: 201a,b or 275	5-6
300 level: 320 and 306	6

Spanish electives (only one semester of 220 may be counted toward the major 6-7

Courses

140-8 (4, 4) First-Year Spanish. The basic skills of listening, speaking, reading, and writing. No previous knowledge of Spanish required. Must be taken in a,b sequence. Not open to native speakers of Spanish without permission of the Spanish section. Elective Pass/Fail.

175-5 First-Year Spanish Short Course. First-year Spanish covered in one semester. The basic skills of listening, speaking, reading, and writing. Not open to native speakers of Spanish without permission of the Spanish section. Prerequisite: one year of high school Spanish or equivalent or special permission of instructor. Elective Pass/Fail.

201-6 (3, 3) Second-Year Spanish. Continuation of grammar and composition. Exercises in language laboratory. Selected readings, with special attention to the role of Hispanic culture in world civilization. Must be taken in a,b sequence. Not open to native speakers of Spanish without permission of the Spanish section. Prerequisite: 140b or 175 or two years of high-school Spanish or equivalent. Elective Pass/Fail.

220-4 (2, 2) Spanish Conversation. Practice in spoken Spanish. Prepared and impromptu group discussions on general topics and everyday situations. Frequent short talks by students. Not open to native speakers of Spanish without permission of the Spanish section. Prerequisite: 140b or 175 or two years of high-school Spanish. Elective Pass/Fail.

273-2 Study in Spain or Latin America. Course taught as part of the summer study abroad program. Prerequisite: one year of college Spanish, or the equivalent. Elective Pass/Fail.

275-5 Second-Year Spanish Short Course. A one-semester course which can be taken in lieu of the Spanish 201a,b sequence. Not open to native speakers of Spanish without permission of the Spanish section. Prerequisite: 175 or 140a,b or equivalent. Elective Pass/Fail.

288-6 (3, 3) Spanish as a Research Tool. **(a)** Basic grammatical structure and vocabulary necessary to a reading knowledge of the language; **(b)** finalizes translation skills in the student's discipline. With consent of student's department, 288b satisfies the graduate school requirement for foreign language as a research tool. Students who have had one year of college Spanish or the equivalent would normally enroll in 288b. This course is intended for graduate students. Undergraduates who wish to enroll are encouraged to consult with the instructor of the course.

305-2 to 4 (2, 2) Advanced Conversation. Improvement of self-expression and aural comprehension. Expansion of vocabulary and idioms emphasized through classroom and language laboratory work. Highly recommended for those students with a major in Spanish. Not open to native speakers of Spanish without permission of the Spanish section. Prerequisite: 201b or 275, and 220b. Elective Pass/Fail.

306-2 Intermediate Readings in Spanish. Improves skills in reading Spanish. Not open to native speakers of Spanish without permission of the Spanish section. Prerequisite: 201b or 275 or equivalent. Elective Pass/Fail.

310-6 (3, 3) Survey of Spanish Literature. The literature of Spain from its beginning in the Middle Ages to our times. Need not be taken in sequence. Prerequisite: 306. Elective Pass/Fail.

315-6 (3, 3) Survey of Spanish American Literature. Spanish literature in America from the conquest to modern times. Need not be taken in sequence. Prerequisite: 306. Elective Pass/Fail.

320-4 Third-Year Grammar and Composition. Required of students with a major in Spanish and any student planning to teach the language. Prerequisite: 201b or 275 or equivalent. Elective Pass/Fail.

370-2 Spanish Civilization. The cultural patterns and heritage of the Spanish people from earliest times to the present. Class discussion in Spanish will be emphasized in order to improve conversational skills. Prerequisite: 201b or 275 or equivalent. Elective Pass/Fail.

371-2 Latin-American Civilization. Latin-American civilization from pre-Columbian times to the present. Class discussion in Spanish will be emphasized in order to improve conversational skills. Prerequisite: 201b or 275 or equivalent. Elective Pass/Fail.

412-3 Advanced Grammar and Composition. Designed to improve language skills beyond the level of 320. Elective Pass/Fail.

415-3 The Linguistic Structure of Spanish. Phonology and grammatical structure of Spanish. Examination of the features of the principal dialects. Elective Pass/Fail.

417-3 History of the Spanish Language. Survey of internal and external history, from Vulgar Latin to Modern Spanish. Elective Pass/Fail.

419-3 Romance Philology. (Same as French 419.) Historical and comparative study of the major Romance languages: their phonology, morphology and syntax. Elective Pass/Fail.

430-3 The Golden Age: Drama. Plays of Lope de Vega, Calderon, Tirso de Molina, and others. Elective Pass/Fail.

431-3 Cervantes. *Don Quijote.* Elective Pass/Fail.
434-2 Colonial Literature in Spanish America. Study of the literature of Spanish America before 1825. Elective Pass/Fail.
435-3 Applied Written Spanish. Business Spanish: discussion and practice of the vocabulary, styles, and forms used in Spanish business correspondence, as well as report writing and documents dealing with trade, transportation, payment, banking, and advertising. Prerequisite: 320. Elective Pass/Fail.
450-3 Spanish Literature of the 19th Century. Study of significant literary works of the periods of Romanticism and Realism in Spain. Elective Pass/Fail.
460-4 Spanish Literature of the 20th Century. The main currents and outstanding works in the literature of Spain since 1900. Elective Pass/Fail.
485-4 (2, 2) The Spanish American Short Story. Survey of the genre in Spanish America. **(a)** From the beginnings through the 19th Century. **(b)** The 20th Century. Elective Pass/Fail.
486-2 Spanish American Drama. A survey of the development of the genre from the earliest times to the present. Elective Pass/Fail.
487-4 (2, 2) The Spanish American Novel. Survey of the genre in Spanish America. **(a)** From the beginnings to 1940. **(b)** From 1940 to the present. Elective Pass/Fail.
488-3 Spanish American Poetry from Modernism to the Present. Survey of the genre from the late 19th century up to the present. Elective Pass/Fail.
490-1 to 3 Readings in Spanish. Directed independent readings in a selected area. Prerequisite: consent of department. Elective Pass/Fail.
502-3 to 6 (3, 3) Seminar in Hispanic Linguistics.
503-3 to 6 (3, 3) Seminar in Peninsular Spanish Literature.
504-3 to 6 (3, 3) Seminar in Spanish-American Literature.
521-3 Medieval Spanish Literature.
530-2 to 4 (2, 2) Spanish Literature of the Renaissance and Golden Age.
535-2 to 4 (2, 2) Spanish American Literature before 1900.
540-2 to 4 (2, 2) Spanish Literature of the 18th and 19th Centuries.
560-2 to 4 (2, 2) Spanish Literature of the 20th Century.
565-3 to 6 (3, 3) Spanish American Literature of the 20th Century.
599-1 to 6 Thesis.
601-1 to 12 per semester Continuing Research.

Forestry (Department, Major, Courses)

Four specializations are offered within the major in forestry. General studies requirements and a core of professional courses are similar for most specializations. Courses specifically required in the various specializations may not be taken for pass/fail credit by students majoring in the Department of Forestry. The departmental program is accredited by the Society of American Foresters.

Available to the Department of Forestry for teaching and research in addition to resources present on campus are the following: the Crab Orchard National Wildlife Refuge; the Shawnee National Forest; a number of state parks and conservation areas; and the Kaskaskia Experimental Forest. Together these comprise more than a million acres of forest land, all in the vicinity of the University. Also accessible for forest products utilization teaching and research is a wood products plant located near the campus. Forest scientists of the U.S. Forest Service (Forestry Sciences Laboratory) are affiliated with the Department of Forestry, and are authorized to participate in the educational activities of the department.

Bachelor of Science Degree, School of Agriculture

FORESTRY MAJOR — FORESTRY ENVIRONMENTAL ASSESSMENT SPECIALIZATION

This specialization provides training in the assessment of the environmental impact of forest resources development. Students do not attend the summer camp field studies but receive special field training in the preparation of environmental impact statements.

General Studies Requirements 45
Requirements for Major in Forestry with Forest Environmental Assessment Specialization 85

Forestry Core 200, 201, 202, 240, 300, 301, 331, 409	23
Botany 200, 201; Zoology 118; Chemistry 140a, b; Biology 307	(12)[1] + 7
Agribusiness Economics 204; 3 hours in GSB sociology or subsitute: GSB 212	(9)[1] + 1
GSD 101, 118, 153; Mathematics 140, 283	(11)[1] + 4
Botany 320 and 443 or 444	8
Forestry 310, 311, 312, 320, 405, 410, 411, 416, 430, 452, 452L, 453, 494a	37
Restricted Electives	5
Total	130

[1]Hours included in total for General Studies requirements.

FORESTRY MAJOR — OUTDOOR RECREATION RESOURCE MANAGEMENT SPECIALIZATION

The program in outdoor recreation resource management provides interdisciplinary training for management of the nation's outdoor recreation heritage. The courses offered are among those recommended by the National Recreation and Park Association. The recreation resource management student does not attend the field study session, but instead travels through selected sections of the United States on a three week tour of outdoor recreation and park facilities in August. During this period, the students pay transportation and living expenses which usually do not exceed $200 per student. Other courses in this program may also require additional fees for materials and field trips.

General Studies Requirements	45
Requirements for Major in Forestry with Outdoor Recreation Resource Management Specialization	75
Forestry Core 200, 201, 202, 240, 300, 301, 331, 409	23
Biology 307; Botany 200, 201; Chemistry 140a, b; Zoology 118	(12)[1] + 7
Agribusiness Economics 204; 3 hours in GSB political science or substitute; 3 hours in GSB sociology or substitute	(9)[1]
GSC 107, 205; GSD 101, 118, 153; Mathematics 140, 283	(16)[1] + 4
Plant and Soil Science 328a, b; Political Science 340; Geography 310; Zoology 468a,b	14
Forestry 311, 312, 320, 405, 411, 420, 421, 422T, 423	24
Restricted Electives	3[2]
Total	120

[1]Hours included in total for General Studies requirements.
[2]To be elected from social and managerial sciences, planning and design, or park arboriculture, or from a combination of these areas.

FORESTRY MAJOR — FOREST SCIENCE SPECIALIZATION

The forest science specialization is available for students desiring to enter a graduate program later on and concentrate in a given area of knowledge. The program provides maximum flexibility to enable students and their adviser to construct individual programs within the fields of study. The program of study may be selected from any subject area within the competence of the Department of Forestry faculty. Students must have a grade point average of 3.00 or higher in university or college level work to be eligible to enroll in this specialization. New students may enroll upon recommendation of an adviser in the Department of Forestry. Students must maintain a minimum grade point average of 3.00 to remain in the specialization. Students and advisory committees of two departmental faculty members will develop programs of study designed to meet the needs and objectives for the area of specialty selected.

General Studies Requirements	45
Requirements for Major in Forestry with Forest Science Specialization	75
Forestry Core 200 ,201, 202, 240, 300, 301, 331, 409	23
Forestry and related electives	52[1]
Total	120

[1]The student and an academic adviser will select courses designed to meet the needs and objectives for the area of specialty selected.

FORESTRY MAJOR — FOREST RESOURCES MANAGEMENT SPECIALIZATION

The program in forest resources management includes instruction leading to careers in forest management and production, multiple-use resource management, and the forest products industries. The specialization includes areas of study recommended by the Society of American Foresters. Emphasis is upon integrated resource management of natural and renewable resources, coordinating forest utilization methods and conservation practices, and preserving our wildlands heritage. A five-week summer camp is required after the junior year to give the student practical field experience. Field study costs per student for living expenses and transportation usually do not exceed $110. Living costs included here are for those nights spent away from campus. Other costs for equipment and supplies which are required for field study and certain other courses are specified in course descriptions.

General Studies Requirements	45
Requirements for Major in Forestry with Forest Resources Management Specialization	85
Forestry Core 200, 201, 202, 240, 300, 301, 331, 409	23
Biology 307; Botany 200, 201; Chemistry 140a, b; Zoology 118	(12)[1] + 7
Agribusiness Economics 204, Agricultural Education and Mechanization 376, 377; 3 hours in GSB sociology or substitute; 3 hours in GSB political sciences or substitute	(9)[1] + 4
GSD 101, 118, 153; Mathematics 140, 283	(11)[1] + 4
GSE 101a	(1)[1]
Five-week early summer field studies: Forestry 300C, 310C, 312C, 320C	6
Forestry 310, 311, 312, 320, 405, 410, 411, 412, 416, 430	28
Restricted electives	13[2]
Total	130

[1]Hours included in total for General Studies requirements.
[2]At least one course (a total of 16 hours) to be selected from each of the following areas: forest science, business administration, law and law enforcement, biological science, physical science.

Courses

200-1 Introduction to Forestry. Acquaints students with the broad field of multiple-use forestry. Special emphasis is given to forestry as a profession. Required field trips cost $15.00. Elective Pass/Fail.

201-3 Ecology of North American Forests. An introduction to forest ecology concepts, site factors, and forests of North America. Emphasis is placed on the silvics of tree species and the impact of soil, climate, and topography on forest vegetation. Forest site-community relationships in the boreal, northern hardwood-hemlock-white pine, central hardwood, and southern pine forest ecosystems will be discussed. Forestry majors must take 202 concurrently. Saturday field trip may be required. Extra cost total $20.00 unless paid in 202. Prerequisite: Botany 200 and 201.

202-2 (1, 1) Tree Identification Laboratory. A two-semester course that teaches field and laboratory identification of trees and shrubs using leaf, twig, bark, and fruit characteristics. Saturday field trips may be required. Extra costs total $20.00 unless paid in 201. Must be taken in a,b sequence, unless otherwise arranged with consent of instructor. Prerequisite: Botany 200 and 201.

240-4 Soil Science. (See Plant and Soil Science 240.)

300-3 Forest Resources Measurements. Introductory measurement, statistical and data processing concepts; volume, growth and yield of forest products; methods of sampling forest resources. Field trips. Prerequisite: Mathematics 140 and 283.
300C-1 Forest Resources Measurements Field Studies. Methods of determining volume and quality of forest products, forest resource inventory procedures, growth and productivity studies. Field trips. Prerequisite: 300.
301-3 Social Influences on Forestry. Study of, and practice in, methods used for effecting social change in forestry and allied natural resource fields. Case studies, readings, and actual practice in techniques are used to develop an understanding of historical and current trends. Prerequisite: a course in sociology and a course in political science.
310-4 Practices of Silviculture. Detailed study of classical concepts and recently developed techniques utilized in silvicultural treatment of forests. Major emphasis to be placed upon establishment, thinning, timber stand improvement, and regeneration of forest. Prerequisite: 331.
310C-2 Silviculture Field Studies. Field experience for the student in the various facets of silviculture including planting, thinning, harvesting, timber stand improvement and site-growth relationships. Offered only at summer camp. Costs for students are given in forestry description. Prerequisite: 331 and 310.
311-3 Resources Photogrammetry. The science and art of obtaining reliable measurement by means of photographs, detection of disease, insects and fire invasion by remote sensors; and delineation of resources boundaries through interpretation.
312-3 Protection of the Forest Environment. The impact, recognition, and control of destructive enemies within the forest environment. Includes fire, insects, disease, pollution, and climatic factors. Prerequisite: 331, Botany 200, Zoology 118, or consent of instructor.
312C-2 Forestry Protection Field Studies. The prevention and suppression of forest fires, the recognition and control of insect and disease organisms and other destructive agents in the forest. Summer camp only. Cost per student given in the forestry description. Requires additional expenses of approximately $20.00 per student. Prerequisite: for forestry resource management option only-331, 202, 312.
313-3 Harvesting Forest Crops. Emphasis is given to lumber sale layouts, sale contracts, and harvest engineering methods. Consideration is given to the environmental impacts of harvesting. Additional cost: $25. Prerequisite: 310 and 312.
320-2 Recreation in Wildlands Environments. Trends in recreational use of wildland environments and emphasis on state and federal parks and forests. Introductory concepts in recreation management, planning, and interpretation.
320C-1 Forest and Wildlands Recreation Field Studies. Recreation of forest and adjacent lands with emphasis on parks and national forests. Administration; interpretation; trends in use and development. Offered only at spring camp (costs per student are given in the forestry description). Requires supplemental purchases of approximately $2 per student.
331-3 Forest Ecosystems. An analysis and integration of tree growth and of forest structure, material and energy flow, and classification in relation to climatic and edaphic factors to provide an ecological basis for management of forest ecosystems. Prerequisite: 201, 202, 240, Biology 307.
341-3 Forestry Practices. The fundamentals of integrated resource management of timberlands. Management systems, tree and stand measurements. Planting and harvesting methods, multiple-use aspects of forest lands. Field trips. Emphasis on small forest ownerships. Not for graduation credit in forest resource's management option.
350-2 Woods as a Raw Material. Structure, identification, and properties of wood. Important species and the significance of wood use to the environment.
381-1 Forestry Seminar. Discussion of problems in or related to forestry. Prerequisite: junior standing, minimum 2.5 GPA, and consent of instructor.
391-1 to 4 Special Problems in Forest Resources. Independent research sufficiently important to require three hours per week of productive work for each hour of credit.
401-3 Fundamentals of Environmental Education. (See Agriculture 401.)
402-3 Wildland Hydrology. Fundamentals of hydrology as related to forest and wildland water resources will be emphasized. Considerations will include the hydrologic cycle with emphasis on soil and groundwater regimes, evapotranspiration, surface and subsurface runoff, and the quantity and timing of water yield. Prerequisite: Mathematics 140.
405-2 Forest Management for Wildlife. Interrelations between forest practices and wildlife populations. Emphasis is on habitat requirements of different wildlife species and ways to manipulate the forest to improve wildlife habitats. Prerequisite: forestry major, or consent of instructor.
408-4 Introduction to Remote Sensing. The course is an introduction to the theoretical and practical considerations of remote sensing for an interdisciplinary audience. Coverage will stress background information about the electromagnetic spectrum, reflectance characteristics of various objects, sensors, filters, platforms and energy flow between object and sensor. Prerequisite: advanced standing or graduate status.
409-4 Forest Resources Decision-Making. Examines management planning decision-making for multiple-use forests particularly in the public sector. Reviews concepts useful for analyzing flow-resource problems, emphasizing systems approaches, introduces use of

modern quantitative methods to evaluate resource use alternatives. Case studies. Prerequisite: 411, Mathematics 140.

410-3 Forest Resources Administration and Policy. Nature of administrative organizations and influences on behavior of organization members. Society influences causing changes in forestry related organizations. Policy formation and implementation, including roles of special interest groups. Prerequisite: 301.

411-3 Forest Resources Economics. Introduction to forest economics: Application of micro- and macro-economic principles to forest timber and non-timber production; capital theory; benefit-cost analysis; and economics of conservation. Prerequisite: Agriculture Industries 204 and Mathematics 140.

412-2 Tree Improvement. Basic theories and techniques of obtaining genetically superior trees for forest regeneration. Prerequisite: senior standing.

414-3 Information Management. The collection of physical, biological, and social variables in the field of forestry through sampling survey. The procedures of data manipulation and calculation and the presentation of graphs and tables.

416-3 Forest Resource Management. The application of business procedures and technical forestry principles to manage forest properties. Emphasis on integrated resource management for tangible and intangible benefits. Field trips and supplemental purchases aproximately $25.00 per student. Prerequisite: summer camp or consent of instructor.

417-2 Forest Land-Use Planning. Principles of location theory as a basis for determining land use; supply of forest land; population pressure and demand; conservation principles; determination of forest land values; institutional factors influencing forest land-use; forest taxation; special taxes, and capital gains. Taught in alternate years. Prerequisite: 411 or consent of instructor.

418-2 Marketing of Forest Products. The role of marketing in the forest industries; review of economic principles; product policy, planning the product line, pricing, marketing channels, marketing programs, marketing organization, and marketing research as influences on the marketing of lumber, wood products, pulp, and paper. Taught in alternate years. Prerequisite: 411 or consent of instructor.

420-3 Park and Wildlands Management. The management of state and federal parks and recreation areas. A systems approach toward management and decision-making will be emphasized. Requires supplemental purchases of approximately $5.00 per student. Prerequisite: 320C or 422T.

421-3 Recreation Land-Use Planning. Principles and methods for land-use planning of park and recreation environments with emphasis on large regional parks. Focus on planning process and types of information to gather and organize. Application in group field projects. Prerequisite: 320, 420, or consent of instructor.

422T-2 Park and Wildlands Management — Field Trip. A study of park conditions, visitors, and management practices at selected county, state, and federal park systems in the United States. Course requires a field trip and supplemental purchases costing approximately $100.00 per student. Prerequisite: 320 or 320C and consent of instructor.

423-3 Environmental Interpretation. (See Agriculture 423.)

429-4 Wildland Watershed Analyses. A lecture/laboratory course designed to provide a practical knowledge of the equipment, procedures, and tests used in determining the quality and quantity of waters flowing within and out of wildlands. Prerequisite: Chemistry 140a.

430-3 Wildland Watershed Management. Emphasis is placed on the principles, technical problems, procedures, alternatives, and consequences encountered in managing wildland watersheds for the production of quality water in harmony with other uses. Prerequisite: 331, 402.

431-3 Regional Silviculture. Designed to evaluate the various silvicultural practices as they are commonly employed in various regions of the United States. Offered alternate years. Prerequisite: 310C.

451-2 Natural Resources Inventory. Theory and practical problems in biometrics to obtain estimates of natural resource populations. Use of computers and other advanced techniques. Case studies of inventory procedures. Field trip cost — maximum $20. Prerequisite: 300 or consent of instructor.

452-2 Forest Soils. Characterization and fundamental concepts of forest soils and their relationship to forest communities and forest management practices. Emphasis is on the origin of forest soil material, soil forming processes, and the chemical, physical, and biological properties of soils as related to forests and forest management. Prerequisite: 240 or Plant and Soil Science 240 and concurrent enrollment in Forestry 452L.

452L-2 Forest Soils Laboratory. Companion laboratory for 452. Emphasis is on methods to characterize and evaluate the chemical, physical, and biological properties of forest soils. Prerequisite: 240 or Plant and Soil Science 240 and concurrent registration in Forestry 452.

453-2 Environmental Impact Assessment in Forestry. Methods of assessing the environmental impact of land-use systems on forest resources and assessing the impact of forest management systems on environmental quality are presented. Case studies culminating in the preparation of environmental impact statements are emphasized. Field trips cost, $20. Prerequisite: senior standing in a natural resource major.

454-2 to 8 Forest Ecology Field Studies. A study of forest communities, soils, and site conditions in one of the following ecosystems: **(a)** Boreal; **(b)** lake states; **(c)** Southern Appalachians; **(d)** Southern pine. Course requires a field trip of about 10 days. Each trip is two semester credits; a maximum of 6 credits may be applied toward graduate credit. Estimated cost $125.00 per trip. Prerequisite: senior standing in natural resources or biological sciences, courses in tree indentification, forest ecology, and soils, and consent of instructor.
460-2 Forest Industries. Analysis of raw material requirements, the processes and the products of forest industries. The environmental impact of each forest industry will also be discussed.
492-1 to 4 Special Studies for Honor Students. Research and individual problems in forestry. Prerequisite: consent of the department chairperson and a 3.0 minimum grade point average.
494-1 to 6 Practicum. Supervised practicum experience in a professional setting. Emphasis on administration, supervision, teaching and program leadership in community, school, park, forest, institution and public or private agencies. Students should enroll according to their curriculum specialization: **(a)** Forest environmental assessment, **(b)** Outdoor recreation resource management, **(c)** Forest resources management. Prerequisite: consent of instructor.
500-2 Principles of Research.
501-1 Graduate Seminar.
511-2 Advanced Forest Resources Economics.
512-2 Tree Selection and Breeding.
516-2 Advanced Forest Management.
520-2 Advanced Park Planning.
521-2 Recreation Behavior in Wildlands Environments.
530-2 Forest Site Evaluation.
531-2 Biological Productivity of Forests.
588-1 to 6 International Graduate Studies.
590-1 to 4 Readings in Forest Resources.
593-1 to 4 Individual Research.
599-1 to 6 Thesis.
601-1 to 12 per semester Continuing Research.

Geography (Department, Major, Courses)

The Department of Geography offers three programs to undergraduate students. The Bachelor of Arts and the Bachelor of Science are offered through the College of Liberal Arts and the Bachelor of Science degree is offered through the College of Education. A minor is required of all geography majors and should be arranged in consultation with the department. Junior college transfer students interested in geography are encouraged to visit the department to determine possibilities for waivers, proficiencies, and transfer credit substitution.

Honors in geography is a special three semester program available to majors with an overall grade point average of 3.00 or better. Interested students should apply during the junior year to obtain departmental consent prior to initiation of an honors program.

The core of the major program involves 300- and 400-level courses. Geography 300, the first course in a major's program, gives a basic foundation in the topics and fields of research within geography. It acquaints students with the viewpoints and methods of geography, the concepts and theories in geography, and maps and quantitative methods, the basic techniques and tools used by the geographer. In addition to Geography 300, at least three 300-level and three 400-level courses are required. Offered are 400-level courses in resource management and physical environment systems, urban and regional planning, and geographic techniques.

The minor requirement for geography majors may be formed in either of two ways. It may be a regular minor from another department or it may be an interdisciplinary selection of courses created in consultation with the department.

Students minoring in geography must take Geography 300 or GSB 103, three 300-level courses and one 400-level course. Geography 300 has been approved as a substitute for GSB 103 for the General Studies requirement. Social studies

students with a 9-hour concentration must take Geography 300 or GSB 103 and complete their concentration with electives from geography.

Bachelor of Arts or Bachelor of Science Degree, College of Liberal Arts

GEOGRAPHY MAJOR — GENERAL

These courses provide the base for those seeking a broad understanding of the field of geography and who have interests in preparing for graduate study or in applying geography in teaching, industry or government.

General Studies Requirements	45
Supplementary College Requirements (See page 84.)	(4) + 8-14
Requirements for Major in Geography	30-32
Geography 300 or GSB 103	3
Any three: Geography 302, 304, 306, 310, or one regional course	8-9
Any 400 level courses	11-12
Electives in Geography selected with the approval of the department	6-8
Minor (or selection or courses complementary to major)	15
Electives	14-22
Total	120

GEOGRAPHY MAJOR — ENVIRONMENTAL STUDIES AND PLANNING SPECIALIZATION

These courses are for those interested in entering the planning field or in preparing for graduate study in urban or regional planning or some aspect of environmental analysis.

General Studies Requirements	45
Supplementary College Requirements (See page 84.)	(4) + 8-14
Requirements for Geography Major with Environmental Studies and Planning Specialization	30
Geography 300, 302, 310, 410, 421, 424, 425, 432, and 470a or 471	
Minor Equivalent (15 hours)	15
Many courses offered in other departments support the geography major with an emphasis in environmental planning. For a complete list see the geography undergraduate program director or the College of Liberal Arts Advisement Center.	
Electives	16-22
Total	120

Bachelor of Science Degree, College of Education

General Studies Requirements	45
Requirements for Major in Geography	31-33
Geography 300 or GSB 103 and 443	6
Any three: 302, 304, 306, 310, or one regional course	8-9
Any 400 level courses	11-12
Electives in Geography selected with the approval of the department	4-6
Professional Education Requirements	25
See Teacher Education Program, page 77.	
Minor (or selection of courses complementary to major)	15[1]
Electives	2-4
Total	120

[1]Students who intend the use of the minor for teacher certification must complete a minimum of 18 semester hours in the minor.

Minor

COLLEGE OF LIBERAL ARTS

A minor in geography requires 15-16
- Geography 300 or GSB 103 3
- Any three: 302, 304, 306, 310 or one regional course 8-9
- 400 level courses 3-4

COLLEGE OF EDUCATION

A minor in geography requires 18-20
- Geography 300 or GSB 103 3
- Any two: 302, 304, 306, 310, or one regional course 5-6
- 400 level courses 7-8
- Geography 443 3

Courses

202-2 Contemporary World Geography: Selected Regions and Places. A geographic study of selected regions and places of particular or current interest in the world. Some attention given to world overview and place names.
212-2 Maps and Mapping. History of cartography; properties, and sources of maps and air photos.
224-3 Geography of Natural Hazards. Damage from natural hazards in the United States is on the rise while loss-of-life has been declining. Losses from earthquakes, floods, hurricanes, tornadoes, drought, hail and urban snow in the United States are reviewed. The range of alternatives to cope with natural hazards are appraised; and special attention is given to problems characteristic of all natural hazards — warnings, relief and rehabilitation, insurance, and land-use management.
257-1 to 5 Concurrent Work Experience in Geography. Concurrent work experience in tasks specifically related to the field of geography and such as are found in cartography and map work, climatology, and resource management. Prerequisite: geography major and consent of department. Mandatory Pass/Fail.
258-1 to 5 Past Work Experience in Geography. Past work experience in tasks specifically related to the field of geography such as are found in cartography and map work, climatology, and resource management. Prerequisite: geography major and consent of department. Mandatory Pass/Fail.
300-3 Introduction to Geography. The nature of geography, the kinds of problems which it investigates, the methods which it uses. Charges not to exceed $5 for field trips.
302-3 Physical Geography. A study of the earth's physical surface, world distribution patterns of the physical elements, their relationship to each other and their importance to people. Field trip and laboratory work. Charges not to exceed $5 for field trips. Prerequisite: 300 or consent. Elective Pass/Fail.
304-3 Economic Geography. Study of the spatial distribution and interaction of economic activities. Introduction to locational theory. Prerequisite: 300 or consent. Elective Pass/Fail.
306-3 Cultural Geography. An overview of the geographic viewpoint in the study of the human occupance of the earth. Aspects of population, settlement, and political geography are treated, and a generalized survey of major world cultural areas is used to integrate course elements. Prerequisite: 300 or consent. Elective Pass/Fail.
310-3 Introductory Cartography. Properties of maps and air photos, their use and sources; map symbols, map projections and map construction. Introduction to the use of quantitative techniques as applied in geographic study. Laboratory. Charges not to exceed $2 for supplies. Prerequisite: 300 or consent. Elective Pass/Fail.
326-3 Geography of Urban Environments. Explores the historic and present relationship between people and the urban environment, and between urban places and the sites which they occupy. Systems of measuring environmental quality are reviewed along with methods of assessing and forecasting change in the total urban environment. Elective Pass/Fail.
331-2 The Human Use of Climate. Introduces the basic concepts in the functioning of the climatic environment at the earth's surfaces and develops a holistic view of the way parts and processes of the earth interact through exchanges of energy and water with reference to questions of the human use of the earth. Elective Pass/Fail.
332-3 Oceanography. A systematic review of the world's oceans, with study of the nature of ocean water, the role of oceans in the Hydrologic Cycle, characteristics of ocean basins, the transport of ocean water, materials and energy exchanges in the oceans, and ocean management and resource problems. Elective Pass/Fail.
360-3 Geography of Illinois. Introduces and explores some of the spatial elements of the

physical and human geography of the State of Illinois through a comparative analysis of the urban and rural lifespace. Specific geographic issues and problems are selected by the students for group discussion and analysis. Charges not to exceed $5 for field trips. Elective Pass/Fail.

362-2 Regional Geography of Europe. Introduces present-day Europe. Survey of the area and an investigation of problems and issues affecting the region. Elective Pass/Fail.

363-2 Regional Geography of Mediterranean Lands and Southwestern Asia. Geography of northern Africa and the Near East in a systematic context. Settlement and land use patterns, cultural history and diversity, and contemporary problems. Elective Pass/Fail.

364-2 Regional Geography: Soviet World. Introduction to and survey of the Soviet world and investigation of problems and issues affecting the region. Elective Pass/Fail.

365-2 Regional Geography of Subsaharan Africa. (Same as Black American Studies 380.) Analysis and explanation of emerging spatial pattern of socio-economic development in Africa as most meaningful to the geographer in assessing the continent's transition from traditional to modern political, social, and economic systems. Elective Pass/Fail.

366-2 Regional Geography: Eastern and Southern Asia. Introduces present-day Eastern and Southern Asia. Survey of the area and an investigation of problems and issues affecting the region. Elective Pass/Fail.

367-2 Regional Geography of South America. Analysis of the landscapes of tropical and Andean South America. Historical background of current patterns and problems. Present and future development problems in terms of natural resources, economic, and agriculture systems, and ethnic and settlement patterns. Elective Pass/Fail.

368-2 Regional Geography of Middle America. Interrelationships of groups of humans and their physical and social environments in Middle America. Emphasizes historical depth of perspective. Clarifies the origin of problems in the region. Elective Pass/Fail.

369-2 Regional Geography of Oceania. Introduces present day Oceania. Survey of the area and investigation of specific problems and issues affecting the region. Elective Pass/Fail.

404-3 Spatial Analysis. The purpose of this course is to equip the student with a series of perspectives and tools with which to view spatial phenomena. Emphasis is placed on methodological approaches to the analysis of areal distributions and phenomena. Longitudinal analysis of data is included. Prerequisite: 300. Geography 410 is advisable or consent of instructor. Elective Pass/Fail.

406-2 Advanced Social Geography. Deals with one or more of the following: population, settlement, ethnic characteristics, political factors; depending on, and varying with, interests of the instructors. Thus, a student may register more than one time. Emphasis will be directed at familiarizing the student with techniques of analysis, and at developing concepts and principles that underlie understanding of the phenomena and their geographic significance. Prerequisite: 306 or consent. Elective Pass/Fail.

410-4 Techniques in Geography. Geographic applications of basic and advanced statistical and mathematical techniques, including basic descriptive statistics, hypothesis testing, regression and correlation, analysis of variance, and nonparametric statistics. Special emphasis on areal measures: nearest neighbor analysis, etc. Prerequisite: 300 or consent. Elective Pass/Fail.

416-4 Specialized and Computer Mapping. Introduction to computer mapping, mapping from air photos, specialized cartographic problems based on individual student interests. Laboratory. Charges not to exceed $2 for supplies. Prerequisite: 310 or consent. Elective Pass/Fail.

418-3 Management of Spatial Data Bases. Introduces students to the use of specialized computer programs for the collection, storage, analysis, and mapping of spatial data. A simplified methodology makes the techniques available to students with no previous computer experience. Elective Pass/Fail.

421-2 Urban Geography. Examination of extracity relationships — theory and structure; intra-city relationships — theory and structure, and selected urban problems. Offered once annually. Prerequisite: 300 or consent. Elective Pass/Fail.

422-4 Economics in Geography and Planning. (Same as Economics 425.) Concepts, symbols, language, theory, and elementary mathematics of economics and geography. Individual's preferences, production functions, the firm, markets, optimality, externalities, and welfare economics. Elementary mathematics of time and intertemporal criteria. Prerequisite: 300 or consent of instructor. Elective Pass/Fail.

424-4 Natural Resources Planning. Literature in resource management problems. Emphasis on theory, methods of measurement and evaluation concerning implications of public policy. The role of resources in economic development and regional planning, water and related land resource problems, and environmental quality from a multi-disciplinary perspective. Prerequisite: 304 or consent. Elective Pass/Fail.

425-4 Water Resource Planning Simulation. A review of water resource planning theory and practice from a physical, technological, economic, social, and geographical viewpoint. Students design a comprehensive water resource plan including flood control, water supply, water quality, and recreation for a city of 175,000 population. This plan is "Played"

against a 50-year trace of hydrologic parameters in a computer simulation. Prerequisite: 424 or consent. Elective Pass/Fail.

427-3 Environmental Perception and Planning. Deals with a description and assessment of the relevance of normative and descriptive theories of decision-making and theories of choice for public policy and environmental management. Studies of the perception of urban environments and other landscapes such as wilderness areas, and perception of and human response toward natural hazards will be considered. Prerequisite: 224 or consent. Elective Pass/Fail.

430-3 Theory of Environment. Exploration of the hypothesis that the physical environment works on local hydrology, soils, and natural vegetation, agriculture, and landforms, through energy and moisture exchanges. Emphasis on model building for comparison of subsystems, to rate effectiveness of contrasting environments, and to project these consequences to environmental management questions. Prerequisite: 302 or consent. Elective Pass/Fail.

431-2 Medical Geography. Deals with the distribution of diseases and attempts to use the operational concepts of human ecology as a point of departure. A brief historical outline and an introduction to public health, epidemiology, and related fields is provided. Problems of communicable and chronic diseases, nutritional deficiency, geochemical relations, biometeorology and medical climatology, environmental pollution, and seasonal disease calendars are emphasized. Taught by Department of Geography staff. Prerequisite: 300 or consent. Elective Pass/Fail.

432-4 Physical Environments of Cities. Energy and moisture budget concepts are developed from basic principles. Microclimatic data, instrumentation and applications stress urban examples. Models of climatic effects and modeling of people's effects concern city climates mainly. Charge not to exceed $5 for field trips. Prerequisite: 302 or 430 or consent. Elective Pass/Fail.

433-3 Advanced Physical Geography. Topics may include landforms, climate, soil or water. Varies with the interest of the instructor. Prerequisite: 302 or consent. Elective Pass/Fail.

434-4 Water Resources Hydrology. Microclimatic factors which affect the hydrologic events of various climatic regions are treated extensively. Methods of estimating geographic variations in hydrologic relations to climatic and microclimate especially evaportranspiration, are compared and evaluated. Consequences of alternative land uses on climate and hydrology are considered regionally. Charges are not to exceed $10 for field trips. Prerequisite: 302 or 430 or consent. Elective Pass/Fail.

435-3 Solar and Alternate Energy Planning. Regional and national strategies for energy supply and demand are reviewed followed by a study of current energy resources, reservoirs, and the range of demands and environmental impacts. Community and national planning strategies for increasing the use of solar and alternate energies are explored, simulated by analog computer, and assessed for present and future implementation probability. Field trip expenses not to exceed $10. Prerequisite: 300. Elective Pass/Fail.

438-3 Applied Meteorology. Analysis of meteorological patterns approached through study of several case histories. Evaluation of meteorological data, air mass and frontal analysis, development of weather forecasts, study of meteorological instruments, clouds, and precipitation patterns. Charges not to exceed $5 for field trips, $5 for supplies. Prerequisite: GSA 330 or consent of instructor. Elective Pass/Fail.

439-3 Climatic Change — Inevitable and Inadvertent. The geologic time-scale perspective of major natural events that have affected the theoretical steady-state climate, and factors in contemporary societal practices that have brought about inadvertent climatic modification. An assessment of the means and extremes of parameter values in the geologic time-scale perspective studied will be compared with the documented and present-day climatic parameter means and extremes. Approaches to prognoses for the Earth's future climatic state will be made. Charges not to exceed $10 for field trips. Elective Pass/Fail.

440-2 Tutorial in Geography. Prerequisite: geography major, senior standing.

443-3 Teaching of Geography. Presentation and evaluation of methods of teaching geography. Emphasis upon geographic literature, illustrative materials, and teaching devices suitable to particular age levels. Charges not to exceed $3 for field trips. Prerequisite: 300. Elective Pass/Fail.

470-6 to 9 (3, 1 or 2, 2 to 4) Urban Planning. (Same as Political Science 447.) (a) Planning concepts and methods. Charges not to exceed $8 for field trips. (b) Field problems. (c) Planning and public administration internship (for undergraduate credit only). Prerequisite: consent of department. Elective Pass/Fail.

471-3 Regional Planning. A study of the viewpoints, methodology, and experiences of various types of regional planning in the United States; some attention given to state and national scale planning. Prerequisite: 300 or consent. Elective Pass/Fail.

487-6 (1, 2, 3) Honors in Geography. (a) Honors tutorial; (b) Honors reading; (c) Honors supervised research. Must be spread over the last two years of the undergraduate's career. May be taken in either a,b,c, or b,a,c, sequence. Prerequisite: consent of department. Elective Pass/Fail.

490-2 to 4 Readings in Geography. Supervised readings in selected subjects. Prerequisite: geography major, advanced standing. Elective Pass/Fail.
500-4 Principles of Research.
510-4 Multivariate Techniques in Geography.
511-2 Philosophy of Geography.
514-2 College Teaching of Geography.
520-2 to 4 Seminar in Physical Systems Evaluation.
521-2 to 4 Seminar in Resource Planning.
522-4 Seminar in Economics in Geography and Planning II.
524-2 to 4 Seminar in Social Geography.
527-2 to 4 Seminar in Urban and Regional Planning.
570-2 to 4 Planning Internship.
591-2 to 4 Independent Studies in Geography.
593A-2 to 24 (2 to 6 per semester) Research in Physical Geography.
593B-2 to 24 (2 to 6 per semester) Research in Economic Geography.
593C-2 to 24 (2 to 6 per semester) Research in Urban and Regional Planning.
593D-2 to 24 (2 to 6 per semester) Research in Social Geography.
596-2 to 4 Field Course.
599-2 to 6 Thesis.
600-1 to 32 (1 to 16 per semester) Dissertation.
601-1 to 12 per semester Continuing Research.

Geology (Department, Major, Courses)

In the field of geology a student may work toward either a Bachelor of Arts or Bachelor of Science degree.

The Bachelor of Arts degree requires a major in geology but is a flexible program, permitting a student to combine training in geology with courses in other areas of interest, such as peripheral sciences, management, or pre-law. A minor is optional. Having obtained a Bachelor of Arts degree, students may continue their education toward a Master of Science degree in geology, although it may be necessary to absolve deficiencies in physics and mathematics.

The Bachelor of Science degree requires a major in geology and courses in biology, chemistry, mathematics, physics, and science electives. This degree will ordinarily be pursued by students desiring to do graduate work in geology or to become professional geologists.

Bachelor of Arts Degree, College of Science

General Studies Requirements		45[1]
Supplementary College of Science Requirements		5
Mathematics 110a,b or 111	(4) + 1	
Foreign Languages	(4) + 4	
Biological Sciences (Not General Studies)	(6)[3]	
Requirements for Major in Geology		41-46
Geology 220, 221, 302, 310, 315, 325, 425, 474, and 450 or 454[4]	30-34	
Chemistry 222 or 224 and 225	7-8[2]	
Physics 203a, 253a or 205a, 255a	4[2]	
Electives		24-29
Total		120

[1]The 45 hour requirement may be reduced by taking College of Science or major requirements which are approved substitutes for General Studies courses.
[2]Courses will also meet the physical science requirement for the College of Science.
[3]If courses which have been approved as General Studies substitutes are taken, they will count as a part of the 45 hours in General Studies.
[4]The summer field geology course, Geology 454, should be taken between the junior and senior years.

Bachelor of Science Degree, College of Science

General Studies Requirements	45[1]
Supplementary College of Science Requirements	5

Mathematics 110a,b or 111	(4) + 1	
Foreign Languages	(4) + 4	
Biological Sciences (Not General Studies)	(6)[4]	
Requirements for Major in Geology		67-68
Geology 220, 221, 302, 310, 315, 325, 415, 425, 454[3], 474	37	
Geology electives	5	
Mathematics 150	4	
Chemistry 222 or 224, 225	7-8[2]	
Physics 203a,b, 253a,b or 205a,b 255a,b	8[2]	
Electives in supporting sciences or technology (to be approved by geology undergraduate adviser)	6	
Electives		2-3
Total		120

[1]The 45 hour requirement may be reduced by taking College of Science or major requirements which are approved substitutes for General Studies courses.
[2]Courses will also meet the physical science requirement for the College of Science.
[3]The summer field geology course, Geology 454, should be taken between the junior and senior years.
[4]If courses which have been approved as General Studies substitutes are taken, they will count as a part of the 45 hours in General Studies.

Minor

A minor consists of 16 hours, determined by consultation with the geology adviser.

Courses

Courses with a laboratory may require purchase of a laboratory manual and a supply fee. All courses requiring field trips may have a field trip cost of approximately $2 to $7.

220-3 Physical Geology. Introduction to the structure and composition of the earth, and concept of geologic time, and the physical and chemical processes that operate to modify the earth and its surface. Speculations concerning the origin and early development of the earth. Two lectures and one three hour laboratory. One Saturday field trip required. Prerequisite: high school or college chemistry. Elective Pass/Fail.

221-3 Historical Geology. Principles and methods of interpreting Earth's history. General view and selected examples of Earth's physical, biological, and chemical history. Laboratory and field trips required. Prerequisite: 220; a biology course recommended. Elective Pass/Fail.

302-4 Fundamentals of Structural Geology I. An introduction to structural geology including a study of the forces involved in the deformation of the earth's crust, with special emphasis on the recognition and interpretation of the resultant geologic features. Laboratory and two Saturday field trips required. Prerequisite: 220, Mathematics 110. Recommended: Physics 203, 204, or 205 or concurrent enrollment. Elective Pass/Fail.

310-4 Mineralogy. Rudiments of crystal structure, morphology and symmetry. Introduction to crystal chemistry. Study of the properties, chemistry, occurrence and identification of common rock-forming and economically important minerals. Lecture-laboratory. Prerequisite: 220, Chemistry 222. Elective Pass/Fail.

315-3 Igneous and Metamorphic Petrology. The characteristics and classification of igneous and metamorphic rocks, their origin and geologic distribution. Laboratory. Field trip required. Prerequisite: 310, 415 recommended. Elective Pass/Fail.

325-4 Sedimentology and Stratigraphy. The characteristic features of sedimentary rocks and the physical and chemical processes responsible for their origin and diagenesis. The classification of stratigraphic units, methods of correlation, and paleogeologic reconstruction. Laboratory and field trips required. Prerequisite: 220, 221, 310; 415 recommended. Elective Pass/Fail.

330-3 Geology of Illinois. For non-majors and beginners. The physical nature of Illinois, its landforms, rocks and soil, geologic history of its formation, active processes and hazards today. Resource development, land and water use and management. Laboratory provides for individual interests in collecting, photography, ecology, planning, etc. Elective Pass/Fail.

400-2 Earth Science Seminar. Designed to integrate the basic concepts of earth science gained through courses taken in several departments. Focus on one or more local problems such as development and management of Cedar Creek Reservoir. Prerequisite: GSA 110, upper class standing or consent of department. Elective Pass/Fail.

413-3 Quantitative Methods of Geology. An introduction to quantitative methods in a geological and earth sciences context. Topics introduced include sampling plans for geological studies, non-parametric tests of geological data, comparisons of geological samples, analysis of sequential geological data. Laboratories will deal with numerical examples from all areas of geology. Prerequisite: advanced standing and consent of instructor. Elective Pass/Fail.

414-1 to 2 Paleobotany. (See Botany 414.) Elective Pass/Fail.

415-3 Optical Mineralogy. The optical properties of minerals and the use of the petrographic microscope for identification of crystals by the immersion method and by thin section. Lecture, laboratory. Prerequisite: 310, Physics 203b, 204b, or 205b. Elective Pass/Fail.

416-3 X-ray Crystallography. (Same as Chemistry 416.) Introduction to the study, measurement, and identification of unknown crystalline materials by X-ray diffraction techniques (especially the Debye-Scherrer methods). Upon request, non-geology majors may work with unknowns from their own fields of study. Prerequisite: 310, Mathematics 150 or consent. Elective Pass/Fail.

417-3 Isotope Geochemistry. Stable and radioactive isotopes and the applications of isotopic studies to igneous and metamorphic petrology, ore deposits, sedimentology, surface processes, geothermometry, and geochronology. Introduction to isotopic techniques and mass spectroscopy. Laboratory or research project required. Prerequisite: 310, 315 and 325 or consent. Recommended: Physics 203, Mathematics 150 and Geology 419.

418-3 Low Temperature Geochemistry. The application of chemical principles to geologic processes that occur on and near the earth's surface. Lecture, laboratory. Prerequisite: 310, Chemistry 222 or equivalent. Elective Pass/Fail.

419-4 Ore Deposits. The geological and other factors that govern the exploration for and occurrence of metalliferous mineral deposits. Study of the geological settings of the major types of ore deposits. Lecture, laboratories, and field trips. Prerequisite: 302, 315. Elective Pass/Fail.

420-3 Petroleum Geology. The geological occurrence of petroleum including origin, migration, and accumulation; a survey of exploration methods, and production problems and techniques. Laboratory study applies geological knowledge to the search for and production of petroleum and natural gas. Prerequisite: 221, 302. Elective Pass/Fail.

425-4 Invertebrate Paleontology. Principles of paleontology and a survey of the important invertebrate phyla and their fossil representatives. Laboratory. Field trips required. Prerequisite: 221, a biology course. Elective Pass/Fail.

428-3 Paleoecology and Environments of Deposition. Characteristics, distribution, and classification of recent and ancient environments. Criteria for recognizing ancient environments. Sedimentological and paleoecological approaches. Recognition of ancient environments and environmental associations. Laboratory. Field trips required. Prerequisite: 425, 325 or concurrent enrollment. Elective Pass/Fail.

430-3 Physiography of North America. A regional study of North American landforms and their origins. The approach designed to give interaction among students, stimulus in organization and presentation of material and library competence. Plan a trip for optimum view of North American physiography. Prerequisite: 220. Elective Pass/Fail.

435-3 Hydrogeology. A problem-solving oriented course which covers the analysis and interpretation of the distribution, origin, movement, and chemistry of ground water. Laboratory. Prerequisite: 220, Mathematics 250. Elective Pass/Fail.

436-4 Elementary Exploration Geophysics. Theory and practice of geophysics as applied to the exploration and development of natural resources. Laboratory involves use of geophysical instruments and interpretation of data. Field trips required. Prerequisite: 220, Mathematics 150. Elective Pass/Fail.

437-3 Field Course in Geophysics. Use of geophysical equipment for collection, analysis and interpretation of seismic, gravity, magnetic, electrical, and other types of geophysical data. Prerequisite: 436 or consent.

440-1 to 4 Advanced Topics in the Geological Sciences. Individual study or research or advanced studies in various topics. Prerequisite: advanced standing and consent of instructor. Elective Pass/Fail.

445-3 Museum Studies in Geology. History, nature and purpose of geology in museums, relationships of geology to other museum disciplines, application of geologic methods to museum functions, preparation and preservation of specimens; nature, acquisition and utilization of geologic collections in museums, role or research in museums.

449-1 to 2 Internship. Credit for professional experience in the geological sciences. Arrangements made with chairperson. Prerequisite: advanced standing. Elective Pass/Fail.

450-2 Introduction to Field Geology. Introduction to field techniques, principles of geologic mapping and map interpretation. Field trip fee $5.00. Prerequisite: 302, 315 or concurrent enrollment. Elective Pass/Fail.

454-6 Field Geology. Advanced field mapping in the Rocky Mountains, including problems in stratigraphy, structure, petrology, paleontology, geomorphology, and economic geology. Transportation cost approximately $100.00, supplies $6.00. Prerequisite: 302, 315; 450 recommended. Elective Pass/Fail.

455-3 Engineering Geology. (Same as Engineering 455.) An examination of problems posed by geology in the design, construction, and maintenance of engineering works. Topics studied include ground water, land subsidence, earthquakes, and rock and soil mechanics. Two term papers and a field trip required. Prerequisite: 220 or consent. Elective Pass/Fail.
460-3 Geological Data Processing. Computer applications to geological problems including the processing and programming of data and the interpretation and evaluation of results. Lecture, laboratory. Prerequisite: Engineering 222 or Computer Science 202. Elective Pass/Fail.
462-3 Fundamentals of Structural Geology II. Intermediate topics in structural geology including strain theory, field strain analysis, geometry of complex mesoscopic structures and introduction to dislocations, deformation history, and microfabric analysis. Hypotheses and orogenesis are discussed and evaluated. Lecture and assigned problems only. Prerequisite: 302 or equivalent.
465-3 Evolution of Orogenic Belts. A combination of lectures and seminars in which the structural and petrological development of specific orogenic belts is investigated in detail. Prerequisite: 302, 315 or equivalent. Elective Pass/Fail.
470-3 Earth Science for Teachers. Designed to help each teacher improve knowledge and skills of the earth sciences, develop units, laboratories, and resources for the classroom. Subjects range from rocks and landforms to weather; from local geology to specific resource people. Prerequisite: teaching experience. Elective Pass/Fail.
474-3 Geomorphology. Study of erosional and depositional processes operating at the earth's surface and landforms resulting from these processes. Relationship of processes and landforms to the geologic framework is examined. Laboratory. Prerequisite: 220. Elective Pass/Fail.
476-3 Pleistocene Geology. Deposits, stratigraphy, and history of the Pleistocene epoch. Evidence for differentiating and dating the glacial and interglacial sequence examined including deep sea cores, soils, magnetic studies. Required field trips. Prerequisite: 220, 221. Elective Pass/Fail.
478-3 Environmental Geology. Identification of geological conditions and processes which affect people's use of the environment: earth materials and structure, climate, water, topography, active geologic processes, hazards; impact of extraction, construction, water collection and control, and waste disposal. Introduction to aims and responsibilities of government regulatory agencies, environmental groups, and industry. Lecture, laboratory, field trips, individual projects, and reports. Prerequisite: 220 or equivalent and advanced standing.
480-3 Geology of Coal. Geology as related to exploration, development and mining of coal; stratigraphy, sedimentation and structure of coal deposits; type of coal basins and their tectonic setting; concepts of cyclical deposition in coal basins; origin of splits and partings in coal seams; relationship of modern environments and ancient coal-forming environments; structural problems relevant to exploration and mining of coal; methods of resource evaluation. Three 1-hour lectures/week; five 1/2 day field trips.
482-3 Coal Petrology. Structural features and microscopy of coal seams. Origin and alteration of coal constituents. Includes field trips, study of coal specimens, and techniques. Prerequisite: 220 and 221 or consent of instructor. Elective Pass/Fail.
484-3 Palynology. (Same as Botany 484.) Taxonomy, morphology, stratigraphic distribution, and ecology of fossil pollen, spores, and associated microfossils. Prerequisite: 220, 221, or consent of instructor. Elective Pass/Fail.
500-1 to 2 Teaching for Geology Graduate Students.
510-3 Advanced Sedimentations.
513-2 Advanced Geologic Data Analysis.
516-3 Industrial Rocks and Minerals.
518-3 Clay Mineralogy.
520-3 Igneous Petrology.
521-3 Metamorphic Petrology.
522-3 Sedimentary Petrology — Siliciclastics.
523-3 Sedimentary Petrology — Carbonates.
526-3 Advanced Topics in Applied Paleoecology.
527-3 Micropaleontology.
529-1 to 3 (1 per topic) Advanced Topics in Applied Invertebrate Paleontology.
535-3 Advanced Hydrogeology.
537-3 Applied Seismology.
538-3 Gravity and Magnetics.
542-2 (1, 1) Seminar in Geology.
565-3 Rock Deformation and Structural Systems.
578-3 Fluvial Geomorphology.
579-3 Advanced Geomorphology.
582-1 to 6 (1 to 3 per semester) Advanced Coal Petrology.
599-1 to 6 Thesis.
601-1 to 12 per semester Continuing Research.

Guidance and Educational Psychology

(Department, Major [Graduate Only], Courses)

The Department of Guidance and Educational Psychology does not offer an undergraduate major but offers courses for undergraduate credit which serve as electives for students in other programs.

Courses

100-2 Decision Making for Career Development. Examination of factors relating to career decision making. Emphasis on the continuous use of learned processes and information in vocational development. Supplementary group guidance and counseling sessions required. Charges may be assessed to cover the cost of administering and scoring occupational interest surveys to be given during the course. These charges should be less than $10.00.
307-3 Educational Psychology. The basic factors involved in the teaching-learning process including student characteristics, motivation, learning, and teacher-student relationships. The course activities are intended to prepare the student with a basic foundation in educational psychology for the purpose of teaching.
380-1 to 4 Practicum in Instructional Roles. One semester hour of credit for every three modules selected. Application of educational psychology in a practical teacher-learner situation. Class members conduct actual instructional activities with individuals or groups of students. Field activities are required and the students may be required to purchase additional materials not to exceed $20. Prerequisite: consent of instructor.
412-3 Human Behavior and Mental Health. A study of the principles of human needs, mechanisms of adjustment, and factors and conditions in life that tend to affect mental health. Prerequisite: junior or senior standing.
422-3 Assessment and Classroom Models. Classroom tests, measurement, standardized tests, grading, and the research knowledge in the application of ability grouping, team teaching, open education, and individualization for individuals of differing abilities.
442-3 Introduction to Counseling and Guidance Systems. The following topics will be covered: purposes of counseling and guidance; counselor roles in various settings; approaches to counseling; guidance activities; and application of the above.
481-1 to 12 Seminar. Conducted by staff members and distinguished guest lecturers on pertinent topics. Prerequisite: consent of instructor and department.
491-1 to 6 Special Research Problem — Individual Study. For majors. Formulating, investigating, and reporting on a problem in the area of guidance. Prerequisite: advanced standing and consent of department.
494A-3 Child Counseling Practicum. A combined seminar, laboratory, and field experience representing the central focus of the program in elementary counseling. Enables the student to practice the role of the counselor under close supervision. Prerequisite: 537 and 3 additional hours from substantive course work in the guidance and counseling program.
494B-3 Adolescent and Adult Counseling Practicum. Practice of counseling skills with an adolescent or an adult population in varied settings. The professional setting depends on the student's interest area. Individual and group supervision are provided. Use of tape recorder is required. Prerequisite: 538 and 3 additional hours from substantive course work in the guidance and counseling program.
494C-3 Career Planning Practicum. Supervised experience in handling career development experiences at elementary, secondary, or college levels. Application of theoretical models to program development is stressed, including presentation of relevant lessons, handling of group guidance activities, and conducting individual career development counseling sessions. Intern experience in public school or college settings equal to one day per week is required. Prerequisite: 542 and 3 additional hours from substantive course work in the guidance and counseling program.
494D-3 to 6 (3, 3) Practicum in School Psychology. Observation and participation in case conferences related to the development of psycho-educational assessment and planning, including teacher and parent consultation, field observations, and psychometric applications. Prerequisite: consent of instructor.
502-3 Basic Statistics.
506-4 Inferential Statistics.
507-4 Multiple Regression.
511-3 Instructional Psychology.
512-3 Affective and Cognitive Behaviors at the School Level.
513-3 Psychological Trends in Education.
515-3 The Psychological Aspects of Instructional Design.
518-3 Psychology of the Classroom.
521-3 Analysis of Classroom Behavior — Consultative Practices for School Personnel.
530-4 Standardized Testing: Use and Interpretation.

531-3 Principles of Measurement.
532-3 Theories of Intelligence.
533-4 Individual Measurement and Practice.
537-4 Counseling with Children: Theory, Techniques, and Practice.
538-4 Interpersonal Relations: Theory and Practice.
540-3 Problems, Issues, and Trends in School Guidance and Counseling.
542-4 Career Development Procedures and Practices.
543-3 Group Theory and Practice.
546-4 Personality Assessment.
547-3 Implementation of Guidance Services.
551-3 The Supervision of Practicum.
555-3 to 6 (3, 3) Seminar in School Psychology.
562-6 (3, 3) Human Development in Education.
567-2 to 9 (2 to 6 per semester) Topical Seminar in Educational Psychology.
568-1 to 12 (1 to 6 per semester) Topical Seminar in Counseling and Guidance.
570-3 Humanistic and Behavioral Theories in Education.
580 Doctoral Seminar in Educational Measurement and Statistics.
592-1 to 8 (1 to 6 per semester) Independent Study and Investigation.
593-1 to 4 Individual Research.
594-1 to 6 Advanced Practicum.
595-4 to 8 (4, 4) Internship in the Psychology of Teaching.
596-15 (5 per semester) Internship in School Psychology.
599-1 to 6 Thesis.
600-1 to 32 (1 to 16 per semester) Dissertation.
601-1 to 12 per semester Continuing Research.

Health Education (Department, Major, Courses)

The Department of Health Education offers two specializations within the health education major and two programs of minimal professional preparation. The two specializations are:

1. Community health. For those planning to conduct health education and health promotion activities in non-classroom settings.
2. Health education in secondary schools. For those planning to teach health education in the secondary schools.

The two minimal professional preparations are:

1. Health education in secondary schools. For those planning to teach or supervise health education in the secondary schools.
2. Driver education. For those planning to teach driver education in Illinois secondary schools.

These specializations in general, constitute minimal preparation for the positions listed. Consequently, all candidates are strongly urged to complete additional work in the field.

Bachelor of Science Degree, College of Education

HEALTH EDUCATION MAJOR – COMMUNITY HEALTH SPECIALIZATION

General Studies Requirements	45
Requirements for Major in Health Education	39
Health Education 301, 305, 311, 312, 326, 330, 335, 401, 483, 490, 491, and Curriculum, Instruction and Media 440	
Recommended Electives	9-12
Electives	24-27
Total	120

HEALTH EDUCATION MAJOR – HEALTH EDUCATION IN SECONDARY SCHOOLS SPECIALIZATION

General Studies Requirements	45
Requirements for Major in Health Education	30
Health Education 301, 305, 312, 313s, 326, 334, 355, 401, 405, and 491	
Professional Education Requirements	25

(See Teacher Education Program, page 77)

Electives	20
Total	120

The two minimal professional preparations requirements for Illinois teachers are:

Health Education in Secondary Schools: Health Education 301, 305, 312, 334, 355, 405, and 491

Driver Education: Health Education 302S, 313S, 442S, 443S, 475S, plus three hours of electives from the following: Health Education 323S, 334, 445, 470S, 480S, 481S, 495S

Courses

301-3 Advanced Concepts of Health. Interrelatedness and interdependence of health as a total concept. Concepts of health and health education within the context of an option-expanding world are examined. Emphasizes role of the individual in assuming responsibility for one's own health behavior as well as education for a health-activated citizenry.

302S-3 Driver and Traffic Safety Education — Introduction. A beginning course that deals with the highway transportation system, traffic problems, the driving task, perception and implementation of the driver education classroom program. Observation of the teaching environment is included. Prerequisite: a valid driver's license.

305-3 Principles and Foundations of Health Education. An introductory professional course in the field, designed to implement the evolving concept that health education is both content and process; major concepts for a variety of teaching-learning approaches in school and other community settings are considered; health careers and opportunities in field are described.

311-3 Human Growth and Development. An overview of human development from conception through senescence. Designed for professional personnel who will be concerned with planning health programs for groups representing broad age ranges. Emphasis will be on physical, mental, and social dimensions of growth and development.

312-3 Emotional Health. Concepts of positive emotional development in terms of influence in the classroom and other community settings.

313S-3 Introduction to Safety Education. Introduces the principles and fundamentals of safety education. Concerns safety as a social problem and considers major accident areas, accident causes, liability and analyzes possible solutions to accident problems.

323S-3 Methods and Materials in Safety Education. Learning strategies used in teaching safety for elementary and secondary school levels. Emphasizes selection and design of materials participation and demonstration.

326-3 Evaluation in Health Education. Principles and methods for monitoring the implementation of health education and for assessing its impact. Development and selection of valid and reliable measures. Use of standardized scores and other appropriate statistics. Applications in classroom and community settings.

330-3 Consumer Health. Federal and state legislation affecting consumer health; official watchdog agencies on consumer health; non-official agencies (AMA, CU, etc); health and advertising in health and medicine; cultists' and faddists' effect on consumer health.

334-2 to 3 Standard First Aid. Provides students with first aid knowledge and skill competencies necessary to care for injuries and meet emergencies. The two hour course provides American National Red Cross standard first aid and personal safety program certification. The three hour course leads to instructor authorization in the American National Red Cross program and includes ANRC procedure. Students enrolling in the two hour course will meet in class session two periods per week; students enrolling in the three hour course will meet an additional hour per week.

350-3 Health Education in the Elementary School Curriculum. Acquaints the prospective teacher in the elementary school with fundamental processes, techniques and instructional materials related to health education.

355-3 Introduction to Community Health. Organization and administration in local, state, and national official and non-official health agencies, their purposes and functions, and an overview of methods for meeting community health needs and for solving community health problems.

400-3 Health Appraisal of School Children. The teacher as a member of the health team in recognizing common health deviations. Emphasis on helping each child realize full health potential.

401-3 Epidemiological Approaches to Disease Prevention and Control. Principles and practices in the cause, prevention, and control of diseases in various community settings.

402-3 Death Education. Designed to prepare educators to conduct learning experiences about death and dying in a variety of school, college, medical care, and community settings. Stress will be placed on developing brief, functional curricula and usable, imaginative teaching-learning materials, and on evaluating resource materials for use in educating at various levels of maturity.

405-3 Sex Education. Examines various programs of sex and family life education in schools, recognizing a range of community attitudes.
407-3 Drug Education. Meets requirements of Illinois state law for education concerning drugs including alcohol for grades K-12. Explores motivations behind use and abuse of drugs. Offers experiences in development of curriculum and teaching approaches and material.
434-3 Advanced First Aid and Emergency Care. Meets the needs of those in positions where a complexity of first aid emergency care procedures are needed. American National Red Cross and Illinois Heart Association cardiopulmonary resuscitation instructor authorizations provided. Consent of instructor required.
440-3 Health Issues in Aging. Students enrolled in the course will be involved in a wide variety of learning activities focusing on health needs of the elderly. The course is designed for students who have a special interest in health implications of aging.
442S-5 Driver and Traffic Safety Education — Practicum. Provides prospective teachers with simulation, range, and on-road teaching experience with beginning drivers. Students may be required to purchase materials not to exceed $15. Prerequisite: 302S.
443S-3 Driver and Traffic Safety Education — Program Administration. Emphasizes administration, reimbursement, scheduling, public relations, planning, and evaluation of driver education programs. Prerequisite: 442S or consent of instructor.
445-2 to 6 (2 to 3, 2 to 3) Contemporary Specialized Laboratory Techniques. Provides teachers and other highway safety personnel with instructional experience in **(a)** motorcycle safety, **(b)** emergency evasive and pursuit driving. Prerequisite: 302 or consent of instructor. Maximum of 6 semester hours may be obtained either graduate or undergraduate.
450-3 Health Programs in Elementary Schools. Orientation of teachers to health programs and learning strategies. Designed for elementary education majors.
460-3 Health Programs in Secondary Schools. Orientation of teachers to health programs and learning strategies. Designed for secondary education majors. Open to non-health education majors only.
461-3 Health Education Summer Conference. A different focal theme each year; e.g., mood modifying substances, ecology, human sexuality, emotional and social health dimensions. Information, ideas, and concepts are translated into teaching-learning materials and approaches; continuing opportunity for interaction between prospective and experienced teachers.
462-3 Health Education Summer Conference. Conference style and format are similar but themes change.
463-3 Health Education Summer Conference. Conference style and format are similar but themes change.
470S-3 Highway Safety as Related to Alcohol and Other Drugs. Relationship between alcohol and other drugs and traffic accident causes. A review of education programs designed to minimize drug related accidents. Prerequisite: advanced standing or consent of instructor.
471-2 Health Education Instructional Designs. Analysis of existing health education curricula with emphasis on student development of instructional designs and modules. Students will prepare, utilize, and critique materials. Prerequisite for student teaching in health education. Prerequisite: 305.
475S-3 Traffic Law Enforcement and Planning. Acquaints safety and driver education teachers and highway safety personnel with purposes of traffic law enforcement and engineering, and methods used to fulfill these purposes. Emphasis is placed upon ways of improving existing services and coordinating efforts of official and non-official agencies concerning traffic problems. Prerequisite: 302S or consent of instructor.
480S-3 Traffic and Driver Education Program Development. Acquaints students with curriculum innovation, current philosophy, learning and teaching theories, and instructional designs. Students will develop learning packages and modules. Prerequisite: 443S or consent of instructor.
481S-3 Traffic and Safety Education — Evaluation Techniques. Emphasizes method of evaluation as applied to traffic and safety education programs. Prerequisite: 480S or consent of instructor.
483-3 Community Health Administration in the United States. Background and development of community health administration structures in the United States; the dynamics and trends evolving from current health and medical care programs and practices.
485-3 International Health. Health beliefs, values, and practices of peoples in various cultures as related to a total way of life of potential value to both prospective teachers and students in other fields.
488-1 to 3 Environmental Dimensions of Health Education. Application of the principles of learning to understanding people interacting with their environment. Emphasis placed upon individual and community responsibilities for promoting environmental health. Rural and municipal sanitation programs and practices are included.
489-3 Introduction to Vital Statistics. An introduction to bio-statistics; examination of theories of population projections; collection, organization, interpretation, summarization,

and evaluation of data relative to biological happenings with emphasis on graphic presentation.
490-2 to 6 Field Experiences in School, Community Health or Safety Education. Field observation, participation, and evaluation of current school or community health education or safety programs in agencies relevant to student interests. Prerequisite: consent of instructor.
491-3 Health Teaching/Learning: School and Community. Teaching and learning strategies at secondary school levels and in other community group settings. Opportunities to examine and observe a variety of educational strategies applicable to health education.
495S-3 Driver Education for the Handicapped. Methods and techniques in the use of assistive equipment and program materials for teaching handicapped persons how to drive. Prerequisite: advanced standing or consent of instructor.
496-4 Industrial Hygiene. Provides a background in the recognition, evaluation, and control of toxic materials and hazardous physical agents in the work environment. Prerequisite: consent of instructor.
499-3 Rx: Education in Health Care Settings. Designed for members and potential members of the health care team to explore educational concepts and strategies applicable to a variety of health care settings. Includes rights and responsibilities of consumer and professional, determinants of health behavior, contrasting models of health care, communication skills, media and materials and planning, implementing and evaluating educational programs. Open to medical and dental personnel, nurses, health educators, dieticians, therapists, pharmacists, social workers, and related professionals.
500-4 Community Organization for Health Education.
510-3 Curriculum in Health Education.
511-3 Health Education Conference Practicum.
515-3 Review of Current Literature in Health Related Fields.
520-3 Special Projects in Health Education.
526-3 Evaluative Approaches to Health Education.
530S-3 Research in Traffic Safety.
533A-4 Human Ecology I.
533B-4 Human Ecology II.
536-3 Professional Preparation in Health Education.
550S-3 Current Developments in Traffic and Safety Education.
555S-3 Traffic Safety Management.
572-3 Coordination and Supervision of School Health and Safety Programs.
590-8 Practicum in Community Health.
592-8 Practicum in Safety and Industrial Health.
597-2 (1, 1) Seminar in Health Education.
598-3 Institute: Writing Research Proposals.
599-1 to 6 Thesis.
600-1 to 32 (1 to 16 per semester) Dissertation.
601-1 to 12 per semester Continuing Research.

Higher Education (Department, Major [Graduate Only], Courses)

The Department of Higher Education does not offer an undergraduate major or minor but it does offer certain courses for undergraduates who wish to learn about higher education, its history, institutions and organization, and current issues. Undergraduates interested in this area are advised by their regular academic advisers.

Courses

399-4 (2, 2) Problems of Higher Education in the United States. An introduction to the broad understanding of higher education in the United States designed to provide perspective. **(a)** Historical development with an emphasis on such basic concepts as lay control, academic freedom, and institutional response to social needs. **(b)** A problem approach is utilized to develop an understanding of faculty, student, and administration roles in solving problems, with an emphasis upon the instruments of governance in colleges and universities as well as upon the meaning of accountability, control, and support of higher education. This course is open to any interested student. Need not be taken in sequence. Elective Pass/Fail.
402-1 to 3 Principles of Student Personnel Group Work. Acquaints the student with group work possibilities and functions in higher education. Elective Pass/Fail.
431-3 Workshop in Adult and Community Education. (See Educational Leadership 431.)
501-2 Introduction to Research in Higher Education.
510-3 Higher Education in the United States.
512-3 Higher Education in Selected Nations.

513-3 Organization and Administration in Higher Education.
515-3 College Students Development: Operations and Policies.
516-3 College Students and College Cultures.
518-3 College Teacher and College Teaching.
521-3 Curriculum Design and Policy.
525-3 Philosophy of Higher Education.
526-3 The Community College.
528-3 Finance in Higher Education.
535-1 to 14 (a-h-1 to 3 each; i-1 to 6) Higher Education Seminar I.
545-1 to 16 (a-g-1 to 3 each; h-1 to 8) Higher Education Seminar II.
550-1 to 4 Higher Education Seminar III.
589-1 to 4 Higher Education Research Seminar.
590-1 to 6 Individual Readings.
591-1 to 6 Individual Study.
592-1 to 6 Special Problems (Individual).
595-1 to 6 Internship in Higher Education.
599-1 to 6 Thesis.
600-1 to 32 (1 to 16 per semester) Dissertation.
601-1 to 12 per semester Continuing Research.

History (Department, Major, Courses)

A major in history consists of a minimum of thirty-two semester hours of history courses. Students who plan advanced study in preparation for college teaching or other professional work are advised to take added work.

Courses may be chosen from all departmental offerings except for GSB 105. Pass/Fail grades do not carry credit toward the major or minor in history. A number of different patterns are available for students anticipating various futures. Students should consult with departmental advisers to choose the pattern that fits their needs. The basic regulation is that, for a course to count toward the major, it must be approved in advance by one of the advisers in the department. Normally the department will accept a substantial part of the credits in history taken in other accredited institutions up to a total of 16 hours. In every case, transfer students must have taken at least 16 semester hours in history at Southern Illinois University at Carbondale.

Advisers are available in the Department of History to assist students in planning their programs in accordance with current University and departmental regulations. Normally courses must represent at least two areas of history (United States, European, and Third World) with a minimum of three courses in two areas, or two courses in each of the three areas. Students must also complete a minimum of three courses at the 400 level and they must write a research paper in conjunction with any 400-level history course which will become a part of their permanent file.

All history majors should meet with the department's undergraduate advisers each semester to keep up to date the records of their progress toward the degree and to receive advance approval of their courses. Transfer students should report to the department prior to their first semester of attendance. A *C* average in the major is required for graduation. A 2.25 average in the major is required before student teaching will be approved by the department.

Students with exceptional scholarly promise may be invited into the departmental honors program which begins with a colloquium and continues with an honors seminar and thesis prepared under the direction of a member of the department. Graduation with departmental honors in history is given to those who successfully complete the program.

Bachelor of Arts Degree, College of Liberal Arts

General Studies Requirements	45
Supplementary College Requirements (See page 84.)	(4) + 8-14
Requirements for Major in History	32[1]

Two courses in American history, two courses in European history, and two courses in Third World: Latin American, Asian, and/or African history, or three courses in each of two of the above fields	18-24
History electives	8-14
Electives	29-35
These may include 27 hours in professional education for teacher certification.	
Total	120

Bachelor of Science Degree, College of Education

General Studies Requirements	45[2]
Requirements for Major in History	32[1]
Eight hours in American history, two courses in European history, and two courses in Third World: Latin American, Asian, and/or African history, or three courses in each of two of the above fields	18-24
History electives	8-14
Professional Education Requirements	27
See Teacher Education Program, page 77. Curriculum, Instruction, and Media 469 is required.	
Electives	16
Total	120

[1]At least three courses must be taken at the 400 level.
[2]See catalog section titled Curriculum, Instruction, and Media for specific certification requirements in General Studies and other areas.

Minor

A minor in history consists of 16[1] semester hours. The student is advised to balance courses between at least two of the three fields of American, European, or Third World history. Transfer students, in order to have a minor in history must have taken at least eight semester hours in history at Southern Illinois University at Carbondale.

Courses

200-3 Problems in the History of World Civilization. Seminar focusing on selected topics in world history. Prerequisite: University Honors Program status or consent of instructor. Elective Pass/Fail.

205-6 (3, 3) History of Western Civilization. **(a)** From ancient times through the sixteenth century; **(b)** The seventeenth century to the present. A brief survey of the major developments and trends in European history from ancient times through the 20th Century. Elective Pass/Fail.

303-1 to 3 Topics in Comparative History. A comparative study of recurring themes in the history of diverse societies and civilizations. Topics will vary and will be announced in advance. Topics to be covered include the problem of slavery, technology and society, war, and civilization. Elective Pass/Fail.

310-4 Ancient Civilizations. A comparative study of ancient near eastern and classical civilizations of the Fertile Crescent and the Mediterranean Basin: Mesopotamia, Egypt, Palestine, Greece, and Rome. Elective Pass/Fail.

313-4 Great Ideas in History: Ancient Greece to Early Modern Times. An introduction to the ideas and culture of western civilization over a period of two thousand years, from the ancient Greeks to the Reformation. The great ideas in philosophy, religion, political theory, and other literature are stressed, and attention given to related trends in painting, sculpture, architecture and music. Slides of art works are shown and tapes of music are played. Elective Pass/Fail.

315-4 Mediaeval Europe. The emergence of Europe from the Age of Constantine to the Black Death, with emphasis on the political, socio-economic, and cultural forces which were at work creating Europe. Elective Pass/Fail.

[1]For the purposes of teacher certification the minor must be 18 semester hours.

320-4 Early Modern Europe. The development of Europe from the 16th Century through the Age of the French Revolution. Elective Pass/Fail.
323-3 History and Artistic Creativity. A selected exploration of the specific conditions in Western history, from the Renaissance to the present, which have encouraged and given direction to creativity in the arts. Elective Pass/Fail.
325-3 Europe Since 1815. The development of Europe from the Age of the French Revolution to the present day. Elective Pass/Fail.
330-6 (3, 3) English History. **(a)** England to 1688; **(b)** England since 1688. Political, social, economic, and cultural history of England. Elective Pass/Fail.
336-3 Fascist Dictatorships in Contemporary Europe: Italy, Germany and Spain. Mussolini's fascism, Hitler's national socialism, and Franco's falangist authoritarianism in historical context. Prerequisite: sophomore standing or consent of instructor. Elective Pass/Fail.
338-3 Eastern Europe. An historical survey of the East European area from the Baltic to the Balkans, with emphasis on the modern era. Elective Pass/Fail.
339-3 Contemporary Soviet Civilization. Developments in the Soviet Union since World War II, with coverage of similarities and dissimilarities of the U.S. and the USSR, their conflict and cooperation, Discussion of Soviet cultural minorities and the stature of the Soviet Union in the Third World.
350-2 The Revolution and the Constitution. A study of the conflicting forces which produced the American Revolution, led to the creation of the federal union and shaped the early republic. Elective Pass/Fail.
354-3 The United States Since 1945. America enters the atomic age; a study of American society since the end of the Second World War and the role played by the United States in the world. Elective Pass/Fail.
355-2 to 3 American Political Extremism. A study of American political and social extremist movements and groups, both of the right and the left, from the revolution to the present.
362-6 (3, 3) Black American History. (Same as Black American Studies 311.) **(a)** Black American History to 1865; **(b)** Black American History since 1865. The role of Blacks and contribution in the building of America and their ongoing fight for equality.
364-3 The Great Depression in the United States. Causes and effects of the great depression and of governmental measures for relief, recovery, and reform during the years 1929-1942. Elective Pass/Fail.
365-3 History of Social Welfare in America. Discussion of the changing attitudes and problems which Americans have applied to the problems of social welfare from the colonial period to the present. Focuses on the condition of the poor, the attitudes toward the poor, and the institutions, public and private, which were created to meet the obligations of social welfare. Elective Pass/Fail.
366-2 to 3 American Indian History. A comprehensive history of American Indians from prehistoric times to the present.
367-3 History of Illinois. The history of the state from 1818 to the present.
368-3 Women in American History. Covers the role of women in colonial society, the impetus for an organized women's rights movements in the 19th century and how it related to general reform movements, and gains and setbacks in the industrial-urban society of the 20th century.
369-3 History of the American Family. A survey of the American family from its origin to the present, focusing on the variety of families — English, African, later immigrants, middle class, and poor. During the course students will write their own family histories, thereby applying what they have learned to their own lives.
370-6 (3, 3) History of Latin America. **(a)** Colonial Latin America. **(b)** Independent Latin America. An introduction to the political, economic, social, and cultural development of Latin America from Precolumbian times to the present. Elective Pass/Fail.
380-6 (3, 3) History of East and South Asia. **(a)** China and Japan; **(b)** India and Southeast Asia. The first semester focuses on China and Japan from early times to the present; the second semester concentrates on India and Southeast Asia in modern times.
385-3 Islamic Civilization. A survey of the development of the Islamic world from Mohammed to the present. Emphasis on continuing themes of Moslem civilization and their effects in the modern world.
387-6 (3, 3) History of Africa. (Same as Black American Studies 314.) **(a)** History of West Africa. A study of West African peoples from earliest times to the present, including the era of kingdoms, the role of Islam, African-European relations, colonialism, and African nationalism. **(b)** History of East-Central Africa. From earliest times to the present, including migrations and kingdoms, African-Arab-European relations, colonialism, and African nationalism. Elective Pass/Fail.
390-3 History in Fiction. A comparative study of fictional accounts and of analyses written by historians over selected periods or topics.
393-3 Twentieth Century Military History. An introduction to the problem of armed conflict throughout history with particular emphasis on the twentieth century and the

transformation of warfare during the era of the World Wars. Prerequisite: sophomore standing or consent of instructor. Elective Pass/Fail.

395-3 Honors. Great ideas and works of history, with discussion of conflicting interpretations of major historical problems. Prerequisite: junior standing and consent of department.

396-2 to 8 Independent Study in Classics Program. (See Classics 496.)

413-3 European Rural Society, 400-1100 A.D. (See Sociology 413.)

414-3 European Urban Society, 1000-1550 A.D. (See Sociology 414.)

417-4 Cultural History of the Middle Ages. Selected problems in the development of mediaeval culture, the mediaeval universities, and the transmission of ancient ideas to the modern world. Elective Pass/Fail.

418-3 Renaissance. The focus is on the Renaissance in Italy and in particular on its relation to the social and economic context in which it developed. The spread of humanism and humanistic values to other areas of Europe will also be considered. Elective Pass/Fail.

420-3 Reformation. Concentrates on the movement of religious reforms in the 16th Century. Emphasis on its roots in the past, particularly in earlier expressions of popular piety and to the wider social and political effects in the 16th and 17th centuries. Elective Pass/Fail.

421-6 (3, 3) Absolutism and Revolution: Europe 1600-1815. **(a)** 1600-1715; **(b)** 1715-1815. The development of enlightened despotism, the rise of the revolutionary movement, and the Napoleonic period. Elective Pass/Fail.

422-6 (3, 3) Intellectual History of Modern Europe. **(a)** 1600-1815; **(b)** Since 1815. The first semester will cover the Age of Reason, the Enlightenment, and Early 19th Century Romanticism. The second semester will cover the period from Marx and Darwin to the Contemporary World. Elective Pass/Fail.

423-3 Diplomatic History of Modern Europe. A study of the European state system and the diplomacy of the major powers, with emphasis on events since 1870.

424-6 (3, 3) Social and Revolutionary Movements in Nineteenth Century Europe. **(a)** 1815-1871; **(b)** 1871-1914. Changing social and political structure of Europe caused by the impact of industrialization and the French Revolution. The consequences of these developments in terms of the emergence of new social forces and the development of movements for social and political revolution. Elective Pass/Fail.

425-6 (3, 3) Twentieth Century Europe. **(a)** World War I to World War II; **(b)** World War II and after. Problems in the political, social and military history of Europe in the 20th Century.

430-3 The British Empire-Commonwealth. The rise of the British Empire and its subsequent development into a commonwealth of self-governing nations.

431-3 British Constitutional History. The development of the English constitutional system from its origins to modern times. Elective Pass/Fail.

432-4 History of France. Social, economic, political, and intellectual evolution from mediaeval origins to the present day. French contributions to western culture. Elective Pass/Fail.

433-3 History of Germany. German state and society from the Middle Ages to the present day. Elective Pass/Fail.

434-3 History of Scandinavia. Denmark, Norway, Sweden, Finland, and Iceland. Related history of the Baltic and North Sea regions, from prehistoric times to the present. Elective Pass/Fail.

435-3 History of Modern Italy. Italy in the 19th and 20th centuries. Emphasis is on continuing problems: the tensions between agricultural south and industrial north, Italy's role as a Great Power, and the persistence of centrifugal forces in Italian politics. Elective Pass/Fail.

436-6 (3, 3) History of Spain. **(a)** To 1700; **(b)** Since 1700. Institutional, intellectual, socio-economic, and political history from the Middle Ages to the present. Elective Pass/Fail for **(b)** only.

437-6 (3, 3) History of Russia. **(a)** Imperial Russia from Peter the Great to the emancipation of the serfs; **(b)** Russia since emancipation: modernization and revolution. The study of Russian history from Peter the Great to the present. Elective Pass/Fail.

440-3 Tudor-Stuart England. England from 1485 to 1714. The social, economic and political development of Britain during the crucial two centuries from late feudal anarchy to world power.

450-4 American Colonial History. The discovery, settlement, and development of the colonies before the American Revolution.

451-3 Jeffersonian and Jacksonian America, 1789-1850. Origin and development of democratic institutions and the emergence of sectional conflict in the pre-Civil War Era. Elective Pass/Fail.

452-6 (3, 3) United States History 1850-1896. **(a)** Civil War era; **(b)** the origins of modern America; reconstruction and nationalization; 1865-1896. The study of the background to the Civil War, the Civil War, Reconstruction, and the Gilded Age.

453-6 (3, 3) Twentieth Century American History. **(a)** 1896-1921; **(b)** 1921-1945. The history of the United States since the 1890's with emphasis upon politics, political ideas and diplomacy.
460-6 (3, 3) Social and Intellectual History of the United States. **(a)** To 1860; **(b)** since 1860. The development of American society and a study of the various types of economic, social, and political thought that have influenced it.
461-6 (3, 3) Constitutional History of the United States. **(a)** To 1877; **(b)** from 1877. Origin and development of the American Constitution from the English background to the present time. Stress is placed on the political, social, and economic forces which influenced the American constitutional system. Elective Pass/Fail.
462-4 Problems in Black American History. Developments which formed the foundation for the "Black Revolution" of the present time.
463-6 (3, 3) History of American Diplomacy. **(a)** To 1914; **(b)** Since 1914. General consideration of American foreign policy and the emergence of the United States as world power. Elective Pass/Fail.
464-6 (3, 3) American Economic History. **(a)** To 1869; **(b)** Since 1869. The growth of the American economy from the colonial period to the present. Emphasis is placed on the historical forces which influenced the American economic system.
465-6 (3, 3) History of the South. **(a)** The Old South; **(b)** The New South. Social, economic, political, and cultural developments of the South.
466-6 (3, 3) History of the American West. **(a)** Trans-Appalachian Frontier; **(b)** Trans-Mississippi Frontier. The American frontier and its impact on American society from the colonial period to the 20th century.
470-3 Colonial Latin America: Policies and Practices. Theory and operation of the Spanish and Portuguese colonial systems in the New World. Elective Pass/Fail.
471-6 (3, 3) History of Mexico. **(a)** 19th Century; **(b)** Revolutionary Mexico. Significant political, economic, diplomatic, social, and cultural aspects of Mexican life from independence to the present time with emphasis upon the Mexican Revolutions. Elective Pass/Fail.
472-3 The Caribbean Area. A history of the Caribbean from Columbus to Castro. Elective Pass/Fail.
473-3 Argentina and Chile. A narrative and comparative history of these two leading Latin American nations with emphasis on the period since independence. Elective Pass/Fail.
474-3 Andean South America. The political, economic, social and cultural development of the Andean nations from Precolumbian times to the present. Elective Pass/Fail.
475-3 History of Brazil. The political, social, cultural and economic development of Latin America's largest nation. Elective Pass/Fail.
476-3 Dictatorships in Latin America. A political, economic, social and military study of the domestic and international aspects of dictatorship. Elective Pass/Fail.
480-6 (3, 3) History of Chinese Civilization. **(a)** Traditional China; **(b)** Modern China. The first semester provides a full coverage of traditional China and emphasis on classical philosophies, religions, historical writings, literature, arts and science. The second semester deals with the transformation of China into the modern ages. Elective Pass/Fail.
484-3 History of Inner-Asian Relations. Tribes, migrations, wars, and power politics in Central Asia and outlying areas of China from Han times through 19th century rivalries to latest developments along the Sino-Soviet frontier. Elective Pass/Fail.
485-3 History of the Middle East. A study of the Middle East from the 7th through the 16th centuries concentrating on the following major themes: the development of Islamic civilization, the mediaeval Muslim world, the disintegration of the Arab caliphate, the rise of the Ottoman Turks, and the development of the Ottoman Empire.
490-1 to 4 Special Readings in History. Supervised readings for students with sufficient background. Prerequisite: registration by special permission only.
491-3 Historiography. Writings of historians from Herodotus to Toynbee. Elective Pass/Fail.
492-4 Historical Research and Writing. Methods of historical investigation, criticism and composition. Open not only to history majors but with permission of instructor to those in other disciplines interested in history as a research tool.
493-1 to 6 Problems in History. Topics vary with instructor. May be repeated for a maximum of six semester hours provided registrations cover different topics. Topics announced in advance.
494-3 Quantitative Research in History. An introduction to the application of quantitative data and social science methods to historical research.
495-4 History Honors. Principles of historical method, research, and writing for senior honor students only. Not for graduate credit. Prerequisite: consent of department.
496-1 to 12 Internship in History. Supervised field work in public or private agencies or operation where history majors are frequently employed, such as archives and libraries, government offices, communications media, historic sites, and museums. Only three hours may be applied to the major and nine hours toward graduate work. Prerequisite: consent of department.

497-3 Historical Museums, Sites, Restorations and Archives. The historical development of the museum from the Academy, the Lyceum, and the Great Museum of Alexandria. Discussion of the museums that have developed in the last three centuries with emphasis on the United States will include historical sites such as battlefields, forts, historic buildings, restorations, historical monuments, and major archives. Field trips to some of these sites form part of the course.
498-3 Problems of the History Museum. Examines the general background and function of the museum in its contemporary setting with special emphasis on tasks of the individual who wishes to work in a historical museum or in an interpretative center. Given in cooperation with the University Museum. Prerequisite: consent of instructor.
515-3 to 6 (3, 3) Studies in Mediaeval and Renaissance History.
516-4 to 8 (4, 4) Seminar in Mediaeval and Renaissance History.
520-3 to 6 (3, 3) Studies in Early Modern European History.
521-4 to 8 (4, 4) Seminar in Early Modern European History.
522-3 to 6 (3, 3) Studies in Modern European History.
523-4 to 8 (4, 4) Seminar in Modern European History.
530-4 Seminar in English History.
550-4 Seminar in American Colonial History.
551-4 The Age of Jefferson.
552-4 Reform Movements in the Pre-Civil War Period.
553-4 Seminar in Twentieth Century United States History.
554-4 New Viewpoints in American History.
555-4 to 8 (4, 4) Seminar in American History.
561-4 Seminar in American Constitutional History.
563-4 Seminar in American Diplomatic History.
566-4 Seminar in American Frontier History.
567-4 Seminar in Illinois History.
570-4 to 8 (4, 4) Seminar in Latin American History.
580-4 Seminar in Modern China.
590-1 to 8 (1 to 3 per semester) Readings in History.
591-2 to 5 Independent Investigation.
593-4 Seminar in Contemporary History.
599-1 to 6 Thesis.
600-1 to 30 (1 to 16 per semester) Dissertation.
601-1 to 12 per semester Continuing Research.

Home Economics Education

(SEE VOCATIONAL EDUCATION STUDIES)

Human Development (Division, Courses)

Courses

400-1 Orientation Seminar in Human Development. Includes a discussion of programs, information, and research presented by faculty and students. Introduction to library facilities.
481-2 to 6 Readings. Supervised readings on selected topics in the area of concentration. (a) Child and family; (b) Family economics and management; (c) Food and nutrition. Prerequisite: consent of instructor.
500-2 Research Methods.
501-3 Human Development Through Life Cycle.
502-3 Professional Services for Diverse Family Structures.
503-3 Impact of Public Intervention on Family Life.
515-1 to 3 Seminar.
572-1 to 5 Special Problems.
593-1 to 3 Research Paper or Project.
599-1 to 6 Thesis.
601-1 to 12 per semester Continuing Research.

Human Resources (College, Courses)

Courses

258-1 to 30 Work Experience Credit. Credit for work experience relevant to the particular departmental programs: prior to entrance into the University; work experience incor-

porated into instructional programs through internship; cooperative work experience programs between the department and the Office of Student Work and Financial Assistance. Credit hours to be granted to be determined by the division director.

259-1 to 24 Occupational Education Credit. Credit for educational experiences in technical schools and institutes, junior college technical and occupational programs and employee training relevant to the paticular departmental programs. Credit hours granted to be determined by the division director.

305-1 to 4 College of Human Resources Honors Seminar. Readings and group discussions in areas of current interest. Prerequisite: junior standing, GPA of 3.0 overall.

387-1 to 6 College of Human Resources Special Problems-Honors. Directed study in specialized problems associated with human resources. Prerequisite: junior standing. GPA of 3.0 overall.

Industrial Technology (Major, Courses)

The industrial technology major has as its objective the training of qualified personnel who can develop and direct the manufacture and distribution of products.

The program is a balanced curriculum of studies drawn from a variety of disciplines relating to industry. Included in the curriculum is the study of materials and manufacturing processes, principles of distribution, and concepts of industrial management and human relations. Communication skills, humanities, and social sciences are studied to develop overall abilities. Knowledge of physical sciences, mathematics, design, and technical skills gained from the program allow the graduate to cope with technical and production problems.

The industrial technology curriculum is flexible enough to provide the means whereby graduates of two-year occupational programs may obtain a Bachelor of Science degree within two years. A graduate of a two-year industrially-oriented occupational program, such as aviation, architecture, automotive, construction, drafting, data processing, electrical, machine tool, mechanical, mid-management, mining supervision, and welding may have an excellent preparation to pursue a Bachelor of Science degree with a major in industrial technology.

Students with work related experience may receive credit toward the degree via Industrial Technology 258.

Additional flexibility in earning credit toward the degree is provided through off-campus courses and cooperative work experience. Cooperative work experience is available to students who qualify with provision that meaningful employment is available in the participating industries.

Off-campus courses for students in the industrial technology program are offered in geographical locations with a high population density whenever it is apparent that there is a need and potential enrollment to justify scheduling a class, it is possible to obtain a faculty member to teach the class, and adequate laboratory and library facilities are available.

A capstone option may be available in the industrial technology major. The option is explained in Chapter 3 of this bulletin. The program is available to students holding associate degrees of at least 60 semester hours in non-baccalaureate-oriented programs or equivalent certification with a minimum grade point average of 2.25. For the industrial technology major, the associate degree or equivalent certification should be in an industry-related field. This option permits qualified students to fulfill their degree requirements by completing 60 semester hours of work approved by the capstone adviser. Each individual's program of study may differ according to the previous academic work, industrial experience, and future career plans.

The industrial technology program is accredited by the National Association of Industrial Technology.

Bachelor of Science Degree, College of Engineering and Technology

INDUSTRIAL TECHNOLOGY MAJOR

General Studies Requirements	45
Requirements for Major in Industrial Technology	75
Physics 203a, b; 253a, b	(6) + 2
GSD 118	(2)
Mathematics 111	(4) + 1
Engineering 222	2
Psychology 320 or Administrative Sciences 301 or Administrative Sciences 385	3
Engineering Technology 103, 104, 244, 245a	12
Industrial Technology 307, 309, 310, 358, 365, 375, 382, 390, 425, 440, 465	35
Technical electives	20
Groups of electives selected from the areas of manufacturing, technical sales, supervision, industrial design, industrial safety, and other technical fields.	
Total	120

INDUSTRIAL TECHNOLOGY MAJOR — OCCUPATIONAL ALTERNATIVE SPECIALIZATION

For students from two-year industry-related occupational programs in a community college or technical institute. Also, students with related work experience may receive credit and qualify for this alternative.

General Studies Requirements	45
Requirements for Major in Industrial Technology	75
Physics 203a, b; 253a, b	(6) + 2
GSD 118	(2)
Mathematics 111	(4) + 1
Engineering 222 or Industrial Technology 270	2-3
Industrial Technology 105, 307, 308, 358, 365, 375, 382, 390, 440, 465	29
Technical electives	40-41
Total	120

INDUSTRIAL TECHNOLOGY MAJOR — MINING SPECIALIZATION

The course requirements for the mining technology specialization are specifically planned to complement the mining technology background of the community college or technical institute associate degree graduate.

In preparing the subject matter for the mining courses every effort has been made to include topics proposed by local mining companies. The main thrust of the overall program is directed toward increased coal production.

Topics included in the course work center around mining methods, mine management studies, quality control, production control, government regulations, safety, productivity-increase methods, current mining problems, mine surveying, geology, mathematics, social sciences, humanities, English composition, technical writing and the physical sciences.

General Studies Requirements	45
Requirements for Major in Industrial Technology	75
Geology 220	(3)

Physics 203a, b; 253a, b	(6) + 2
GSD 118	(2)
Mathematics 111	(4) + 1
Engineering 222	2
Engineering Technology 263	3
Industrial Technology 105, 307, 320, 330, 360, 365, 375, 382, 420, 439, 441, 460	35
Technical electives	32
Total	120

Courses

Safety glasses, a suitable calculator, and textbooks are required for most of the following courses.

105-2 Technical Drawing. Basic principles of technical drawing including orthographic (multiview) projection; point-line-plane relationships, and pictorial drawing. Two hours of lecture and two hours of laboratory per week. Drawing supplies and workbook required cost approximately $15. Elective Pass/Fail.

210-2 Microprocessor Calculating Techniques. Study and utilization of various microprocessor calculating techniques. Emphasis will be placed on the use of mini-computers.

219-3 Introduction to Mining Technology. Provides an introduction to mining systems and methods; basic concepts of electricity, hydraulics, mechanics, and gas control involved in mining.

240-2 First-Line Supervision. Analysis of problems of first-line supervisors. Topics include leadership, motivation, communication, grievances, training, discipline, and group and individual effectiveness.

258-2 to 30 Work Experience Credit. Credit granted for past work experience while employed in fields related to the student's educational objective. Credit is established by departmental evaluation.

259-2 to 50 Occupational Credit. For occupational credit earned at junior colleges and technical institutes. Credit is established by departmental evaluation.

270-3 Computational Methods for Industrial Technologists. Introduces the student to a problem-oriented computer language that is used to solve relevant problems that occur in industry. Prerequisite: 210.

307-3 Analytical Problems in Technology. Methods of formulation and solution of special problems encountered in industry and technology using advanced techniques. Prerequisite: Mathematics 111 or equivalent.

308-3 Fundamentals of Industrial Processes. Introduction to the basic processes, equipment, and materials used in industry. Includes plastics, metal removal, casting, metal forming, and materials joining. Credit is not given if the student has credit for both 309 and 310.

309-4 Industrial Processes I. A comprehensive study of plastic processes, resins, equipment, and materials. Study of metal removal processes emphasizing economics, cutting theory, and non-traditional methods. Laboratory.

310-4 Industrial Processes II. Comprehensive study of metal casting, processes, testing instruments, and production equipment. Analysis of metal forming processes with emphasis on the newer techniques of explosive, ultrasonic, and powder metallurgy. Study of metal joining techniques. Laboratory.

318-3 Municipal Hydraulics. A study of the field of applied hydraulics as related to municipal water systems. Emphasis will be placed on the construction of systems to supply adequate volumes for fire flow requirements.

319-2 to 30 Industrial Internship. Industrial experience includes job skills, manufacturing processes, technical information, and labor-management relationships with supervised instruction, conferences, and examinations. Prerequisite: consent of instructor.

320-3 Surface Mining Operations. The elements of surface mining, methods and equipment, surface mine terminology, pit development, and equipment selection. Field trips. Prerequisite: appropriate background.

330-1 Current Mining Problems. Guest lecturers provide timely information on current mining technology problems. Special investigations of mining techniques. Emphasis on state and federal regulations.

335-3 Metallurgy and Heat Treatment. Analysis of metal structures and principles and processes of heat treatment. Laboratory. Prerequisite: Mathematics 111.

340-3 Numerical Control. Principles of numerically controlled processes, equipment and programming. Includes APT computer language. Laboratory.

341-3 Maintenance. Principles and practices of maintenance department organization, preventative procedures, and typical equipment problems. Also, includes related topics such as plant protection, custodial services, and maintenance of power plants.
342-3 Industrial Finishing. Methods and equipment of industrial coating and surface treatment processes, with emphasis in process selection for economy and function. Prerequisite: 308.
351-3 Industrial Metrology. Error analysis. Measurement standards and inspection systems.
354-3 Plastics Technology. Advanced study of plastic processes concentrating on test methods, material selection, and an in-depth study of an assigned plastic process. Laboratory.
358-3 Materials Handling and Plant Layout. Methods and equipment of materials handling. Plant layout techniques. Students are assigned a plant layout project. Prerequisite: 382 or Administrative Science 318, or consent of instructor.
360-3 Mine Production. A study of mining methods, production, techniques and automated process control. Flow sheets. Production economics. Mine management studies. Government regulations. Prerequisite: appropriate background.
362-3 Industrial Packaging. Analysis of packing principles, equipment, and processes such as paper, glass, metal containers, and plastics.
365-3 Quality Control. Analysis of control charts, acceptance sampling procedures, inspection systems, reliability and quality experiments.
369-3 Industrial Design. Introduction to the basic design concepts including design process developments, design phases, and communications. Emphasis on factors influencing design, design analysis, and creative thinking.
375-3 Production and Inventory Control. Production and inventory control systems with emphasis on cost analysis. Applicable operations research techniques.
379-3 Machine and Tool Design. Emphasis on metal processing equipment design. Prerequisite: 369 recommended.
382-3 Motion and Time Study. Principles and practices of motion and time study including process charts, operation charts, motion summary, and time standards.
385-3 Purchasing. Provides a comprehensive knowledge of modern procurement practices and policies. It combines analysis of the fundamental purchasing principles with analytical descriptions of the latest developments and techniques.
390-3 Cost Estimating. Study of the techniques of cost estimation for products, processes, equipment, projects, and systems.
395-3 Technology Design. An elective project on a technical subject selected by the student with advice from the instructor. Stimulates original thought and creativity.
420-3 Coal Analysis and Inspection. A study of methods and equipment for the inspection and analysis of coal including the techniques for the design of coal-quality experiments. Laboratory. Prerequisite: 365 or appropriate background.
425-3 Advanced Process Design and Control. Extension of other process courses offered. Meets the need of those students who enter the field of manufacturing by giving more emphasis on planning, estimating, and control of industrial processes. Laboratory. Prerequisite: 309, 310.
439-3 Bulk Materials Handling. Study of the various types of equipment used in the mining industry. Estimation of costs and output of equipment used for excavating and transporting earth materials. Prerequisite: appropriate background.
440-3 Manufacturing Policy. Review of all areas covered by the industrial technology program. Includes problems for solution which simulate existing conditions in industry. Students present their solutions to the class and to the instructor in a formal manner. Prerequisite: 358, 365, 375, 382, or consent of instructor.
441-3 Mine-Safety Technology. An in-depth study of the technological implications of the Federal Coal Mine Health and Safety Act. Emphasis is placed on the technology required to operate safely underground coal mines. Prerequisite: appropriate background.
450-3 Industrial Systems Analysis. Teaches the systems required for successful industrial operations. The role of the computer in system design and application is emphasized.
460-5 Mining Technology. Mining methods; mine ventilation and pumping systems; mine structures; power distribution; coal-mine development and exploitation. Prerequisite: 360 or appropriate background.
465-3 Industrial Safety. Principles of industrial accident prevention; accident statistics and costs; appraising safety performance; recognizing industrial hazards and recommending safeguards. Includes a study of the Occupational Safety and Health Act and the Coal Mine Health and Safety Act. Prerequisite: senior standing.
466-3 Occupational Safety and Health Standards. Covers the standards, inspection procedures, and compliance requirements covered in the latest revisions of the Occupational Safety and Health Act of 1970. Emphasis is placed on developing the student's ability to detect violations of the standards and recommend corrective safety actions.

492-1 to 6 Special Problems in Industry. Special opportunity for students to obtain assistance and guidance in the investigation and solution of selected industrial problems. Not for graduate credit. Prerequisite: consent of instructor.

494-1 to 12 (A-L-1 hour each) Applied Project. Selected applied project. Requires the students to apply knowledge learned in various courses to the solution of industrial problems. **(a)** Motion and time study, **(b)** cost estimating, **(c)** materials handling and plant layout, **(d)** production and inventory control, **(e)** quality control, **(f)** manufacturing policy, **(g)** industrial systems analysis, **(h)** fundamentals of industrials processes, **(i)** industrial safety, **(j)** analytical problems in technology, **(k)** numerical control, **(l)** industrial metrology. Not for graduate credit. Prerequisite: consent of instructor.

Interior Design (Major, Courses)

The interior design program is a part of the Division of Comprehensive Planning and Design.

The interior design curriculum is planned to assist students in preparing to serve the interior design and architectural professions in the areas of public building, commercial, and residential planning. This includes spatial concepts, interior systems, office landscape, traffic and communication, and human factors. An in-depth understanding of the relevancy of the curriculum to the profession is given the students through lectures and critiques by visiting interior designers, architects, and adjunct professors.

Employment opportunities exist in interior design studios and architectural firms; in major corporations as in-house planners and designers; as interior decorators; and in various retail organizations and furnishing manufacturers.

The Interior Design program is accredited by the Foundation for Interior Design Education Research.

The Division of Comprehensive Planning and Design provides the faculty, studios, and as many other facilities as possible, but all other costs including supplies, equipment, and required field trips that are necessary to the successful completion of the program are borne by the student. Interior design education is relatively expensive, and because of the individual nature of the creative laboratory work, it is impossible to predict the exact cost for each student. A reasonable estimate of initial cost would be $150.00 for equipment, supplies, and books. Much of this equipment is non-expendable but there will be additional supply costs for other courses in the program.

Bachelor of Science Degree, College of Human Resources

General Studies Requirements		45
Requirements for Major in Interior Design		75
School of Technical Careers 215a, b	6	
Art 200, 207	5	
Clothing and Textiles 104	2	
Interior Design 231, 300, 332a, b, 350, 381, 382, 383, 384, 390, 391a, b, c, 393, 394, 470, 491	51	
Electives	11	
Recommended electives: GSC 101, Administrative Sciences 170, Finance 271, Journalism 340, Cinema and Photography 320, Interior Design 331, 371, Theater 207		
Total		120

Courses

131-4 Introduction to Design, Home Furnishings and Interiors. Analysis of the visual environment, principles and elements of design and their relation to selection and arrange-

ment of furniture and use of various media in design of residential interiors. Not open to interior design majors. Lecture and laboratory. Elective Pass/Fail.

231-3 Introduction to Interior Design. Introduction to principles of two- and three-dimensional design through the application of purposeful experiments with emphasis on functional uses of form and their relationship in space. Various media, application and viewpoints are used. To be taken concurrently with School of Technical Careers 215A. Lecture and Laboratory.

300-2 Display and Exhibition Design. Application of design principles and use of graphics in display. Studies in two- and three-dimensional display and exhibition; model-making techniques. Incidental expenses for supplies and materials. Prerequisite: 131 or 231 or consent of chairperson. Elective Pass/Fail.

331-3 Textile Design. Study of textile design and hand printing methods in textile production including block print, silk screen, batik, and tie dye. Simple weaving techniques. Lecture and laboratory. Prerequisite: 131, or 231, or consent of instructor. Elective Pass/Fail.

332-6 (3, 3) Construction Methods and Materials for Interior Designers. Study of construction methods and materials of buildings and standard graphic methods of presentation for interior designers. **(a)** residential **(b)** small commercial. Lecture and laboratory. Prerequisite: 231 or consent of chairperson.

350-3 Basic Materials. A study of construction and finishing materials other than those of a structural nature including production methods, limitations, quality control, application, and uses. Lecture. Prerequisite: concurrent enrollment in 332 or consent of chairperson.

371-4 Professional Internship. Supervised internship in interior design providing professional development of the intern through actual working conditions. Prerequisite: interior design majors within four semesters of graduation and consent of chairperson. Mandatory Pass/Fail.

381-2 History of Interior Design through the 19th Century. Furnishings and interiors from antiquity to the late 19th Century. Lecture.

382-2 History of 20th Century Interior Design. History of interiors, furnishings, and designers from the late 19th century to the present. A study of the relationship between the design of contemporary interiors and architecture and architects. Lecture.

383-2 Design and Fabrication of Furniture. Anthropometrics and systems analysis as related to the design, construction, and production of furniture. Includes working drawings and models. Lecture/laboratory. Recommended to be taken concurrently with 382. Prerequisite: School of Technical Careers 215B or Architectural Technology 111 or consent of chairperson.

384-3 Systems in Architectural Interiors. Technical survey of mechanical equipment in buildings with emphasis on lighting and illumination design. Consideration will also be given to environmental comfort, acoustics, sanitation, and code requirements. Lecture. Prerequisite: 332A.

390-3 Design Presentation and Delineation. Methods, materials, and media are explored to find the most satisfactory way to present interior design to clients, including creation of three-dimensional delineation of interior designs in varied media. Lecture and laboratory. Prerequisite: 231 and School of Technical Careers 215B.

391-12 (4, 4, 4) Intermediate Interior Design. Interior design of total environment concepts integrating interior and architectural functions through increasingly complex projects. **(a)** Residential. Prerequisite: 390 and concurrent enrollment in 332a. **(b)** Restaurant and commercial. **(c)** Office and public building planning. Prerequisite: for 391b or c: 391a and concurrent enrollment in 332b or consent of chairperson.

393-3 Architectural Analysis for Interior Designers. A study of architectural components as they relate to the proximate interior environment. Includes architectural planning of interior and exterior elements. Prerequisite: 332b and 390 or consent of chairperson.

394-3 Contract Interior Design and Professional Practice. Residential and contract interiors and business principles of interior design, including systems, forms, and logistics of money and materials. Lecture and laboratory. Prerequisite: 391b or c or consent of chairperson.

470-3 Interior Design Seminar. Development of systematic approach involving systems analysis, human factors engineering, environmental variables. Prerequisite: eight hours in interior design or consent of chairperson.

491-4 Advanced Interior Design. Systematic analysis of human factors as determinants of design solutions for large-scale interiors. Lecture and laboratory. Prerequisite: 391c, 394 or consent of chairperson.

Journalism (School, Major, Courses)

The School of Journalism prepares academically sound, technically proficient, capable, and responsible graduates for professional journalistic careers. These

careers, depending upon the level and direction of studies, may be found in news-editorial and advertising positions on newspapers, magazines, cable communications systems, and other news media; in other advertising careers; and in public relations, media management, photojournalism, teaching, and research.

Two specializations, news-editorial and advertising, are accredited by the American Council on Education for Journalism, the agency approved by the U.S. Department of Health, Education and Welfare to accredit in journalism education. Early in the junior year the student must decide upon a specialization, either of which provides a number of electives which permit the student to explore other areas in journalism.

ADVERTISING SPECIALIZATION

Students electing the advertising specialization develop their abilities to analyze problems and identify the roles advertising and other communications can play in solving them; develop tools of planning, executing, and controlling advertising campaigns; and develop skills in the use of language and other message forms for specific purposes. A core of courses totaling 21 hours is required of all students, leaving 9 to 13 hours for work in one or more of the nine areas of interest mentioned in the following paragraph. This program helps prepare students to enter a wide variety of positions with advertising agencies, in the media, and related fields.

NEWS-EDITORIAL SPECIALIZATION

Students who elect the news-editorial specialization gain thorough professional training in both theory and practice in a number of related fields. These include daily and weekly newspapers, magazines, telecommunications, media management, photojournalism, public relations, research, and teaching. A core of courses totaling 24 semester hours is required of all students, leaving 6 to 10 hours of work in one or more of these nine areas of interest.

Bachelor of Science Degree, College of Communications and Fine Arts

The academic requirements for the Bachelor of Science degree in journalism include 30 to 34 hours in journalism as approved by the School of Journalism and 26 to 30 hours in junior-senior level class work in the College of Liberal Arts, the College of Science, or other areas approved by the faculty.

Students will also complete a 15-hour minor in an area approved by the School of Journalism. The minor must be declared by the time the student has accrued 90 semester hours. Students who select a minor within the College of Liberal Arts may include those hours in their 26-30 senior level hours.

General Studies Requirements	45
Requirements for a Major in Journalism	30-34
Journalism 300, 310, 370	9
Required for the Advertising Specialization: 372, 374, 476, 479	12
or	
Required for the News-Editorial Specialization: 311, 312, 442, and two of the following: 390, 391, 411	15
Journalism electives to complete 30-34 hours	
Minor	15
Approved electives (Must include Marketing 304 for Advertising Specialization)	26-30
Total	120

PHOTOJOURNALISM SPECIALIZATION

A photojournalism specialization, administered jointly by the School of Journalism and the Department of Cinema and Photography, prepares students to become photographer-reporters and photo editors and to work in related posi-

tions in the mass media. Journalism majors enrolled in the specialization will be required to take the following courses: Journalism 300, 310, 311, 313, 370, 442 and either 312 or 315; Cinema and Photography 407 and 408; plus additional journalism hours for a total of 30-34.

Other Requirements

Journalism students must demonstrate a working knowledge of typewriting based upon a minimum rate of 30 words a minute. This proficiency must be demonstrated (by proof of a passing grade in a typing course or an examination given by the School of Journalism) before they register for Journalism 310. If they cannot meet this requirement, they must enroll in a typing course and receive a grade of *C* or better.

A student receiving a grade of *D* or lower in a journalism sequence course must repeat that course and receive a grade of *C* or better before advancing in that sequence.

Moderate fees will be assessed for supplies and materials in some courses.

Subject to the approval of the school's director, undergraduate students may receive as much as nine hours of journalism credit toward their degrees for courses not taken in residence.

Minor

A total of 15 hours of journalism courses constitutes a minor for nonjournalism majors.

Courses

300-3 Mass Media in Modern Society. Develops an awareness of the pervasive nature of the mass media in our society and an understanding of how the media operate, with emphasis on contemporary social and economic problems in the media.

310-3 Writing for the Mass Media. Study in the fundamentals of news writing, the techniques of news gathering and reporting, and the principles of editing with experience in the gathering, writing, rewriting, and editing of news copy. Prerequisite: typing speed of at least 30 words per minute.

311-3 Reporting and News Writing. Purposes and effects of different orientations to the information gathering and news writing processes; information sources, interviewing, writing, and editing practices; laboratory in reporting, writing, and editing for the news media. Prerequisite: 310 and satisfactory score on language skills examination.

312-3 Editing and Makeup. Principles of editing are combined with graphic concepts and techniques which interrelate printing processes, photography, writing of cutlines, picture page preparation, and page makeup, copyfitting, head schedules, newspaper organization, and the work flow on the ad and editorial sides. Prerequisite: 311.

313-3 Introduction to Photojournalism. (Same as Cinema and Photography 313.) Fundamentals of publications photography. Includes basic camera technique, black and white film and print processing methods, selection and display of photographs, and evaluation of pictorial communication effects. Student supplies own photographic materials and, where possible, an adjustable camera. Prerequisite: consent of department. Open only to journalism majors. Students are responsible for purchase of supplies not to exceed $25.

315-3 Graphic Communication. History of printing and typographic development, modern reproduction processes, technological developments, selection and use of appropriate graphic images in communication, and production techniques for publications. Students are responsible for purchase of supplies not to exceed $15.

340-3 Publicity Methods. Guidance and practice in writing for newspapers, magazines, and broadcast media about students' fields of specialization. Includes practical work as publicist for university and community groups. Non-majors only. Closed to students who have passed 310.

341-3 Public Relations. Current methods of planning and executing public relations policies, evaluating the media, and preparing campaigns. Promotional tools and press relations.

350-3 Community-Suburban Journalism. The small newspaper recognized as a distinct medium, performing a specialized function for its readers. Equal weight given to the problem of news presentation and to leadership with careful examination of news and editorial policies of representative newspapers. Prerequisite: 311.

351-3 Community Newspaper Management. Organization, operation, and policy of the revenue departments of the community and suburban weekly and small daily newspapers

with special attention to the circulation procedures, retail, general and classified advertising problems, and other phases of management. Prerequisite: 350.

360-3 Magazine Production and Design. The editorial and production functions of the magazine. Application of the principles of article and art layout to total editorial content. Printing production and selection of materials. A field trip is required. Cost should not exceed $20.

370-3 Principles of Advertising. An introduction to the processes of advertising and their functions in a marketing-communications environment; includes research, media, and message elements of advertising campaigns, governmental regulations, and social and economic considerations.

372-3 Advertising Media and Management. Analysis of economic, social, and marketing factors and their use in developing advertising objectives and strategies. Examination of mass media systems as vehicles of advertising communication and the planning, buying, and scheduling of advertising media programs. Prerequisite: 370, Marketing 304.

374-3 Creating Advertising Messages. Examination and practice in the development of advertising message strategies and the writing and design of advertising messages for television, radio, newspaper, magazine, outdoor, direct mail, etc. Students are responsible for purchase of supplies not to exceed $15. Prerequisite: 370.

390-3 Critical and Persuasive Writing. The roles and responsibilities of the editor, editorial writer, and opinion columnist with emphasis upon editorial writing and critical thinking. Editorial problems, methods, policies, style, and the fundamentals of persuasion and attitude change form the basis for study. Prerequisite: 311.

391-3 Feature Writing. Identification, research, and application of creative writing techniques with emphasis on newspaper articles. Analysis of reader appeal; study of feature story structure; development of style by practice in writing feature stories. Prerequisite: 311.

392-3 Reporting for Electronic Media. Researching, writing, and producing local news and public affairs presentation for CATV systems. Prerequisite: 310.

400-3 History of Journalism. Development of American newspapers, magazines and radio-television with emphasis on cultural, technological, and economic backgrounds of press development. Current press structures and policies will be placed in historical perspective.

401-3 International Communication. An analysis of the development, structure, functions, and current status of media systems in other countries. Emphasis given to studying factors that facilitate or restrict the flow of intranational and international communication.

405-3 Introduction to Mass Communication Research. Overview of communication research methods including practical training in interpretation and presentation of social science data. Introduction to survey research methods, experimental design, and use of computers for analysis of data. Presentation of data in journalistic forms and social science reports. Prerequisite: 310 or equivalent or consent of instructor.

411-3 Public Affairs Reporting. Covering government and other public agencies, including the city hall, courts, county offices, business, finance, agriculture, labor, and other specialized beats. One field trip is required. Cost should not exceed $20. Prerequisite: 311.

420-3 School Publications. Designed for the prospective high school or junior college journalism teacher or publication director. Deals with practical production problems of school newspapers and yearbooks.

442-3 The Law of Journalism. Legal limitations and privileges affecting the mass media to include the law of libel, development of obscenity law, free press and fair trial, contempt of court, right of privacy, advertising and antitrust regulations, copyright, and access to the press. Prerequisite: senior standing.

450-3 Mass Media Management. Basic economic and management theory and application of theory to the management process in the mass media. Individual projects involving analysis of management of a selected medium. Prerequisite: consent of instructor.

451-3 Current Media Problems. Readings and weekly seminar discussions on the role of the journalist in seeking solutions to the problems facing the mass media in the last third of the Twentieth Century. Involves questions of economics, structure, ethics, effects.

461-3 Specialized Publications. Functions, operations, and problems of industrial, trade, business, professional, literary, and other specialized publications. Management, personnel, and production practices. Use of research in solving problems and setting policies.

462-3 Magazine Article Writing. Principles, problems, and techniques involved in producing free-lance and staff-written magazine articles with an emphasis on determining the relationship between article content and audience market. Prerequisite: 311.

476-3 Advertising Campaigns. Application of advertising principles and techniques to the solution of a specific advertising problem facing a cooperating advertiser or advertising agency; problem analysis, development of strategy, media planning, message development, campaign presentation. One field trip is required for a campaign presentation. Cost should not exceed $20. Prerequisite: 372 and 374.

479-3 Social Issues and Advertising. Analysis of social issues involving advertising; economic relationships, government and self-regulation, cultural effects, influence on

media content and structure, role in democratic processes, international, and other problems and controversies. Prerequisite: senior standing.
490-1 to 6 (1 to 2, 1 to 2, 1 to 2) Readings. Supervised readings on subject matter not covered in regularly scheduled courses. Prerequisite: written consent of instructor and area head.
494-1 to 3 Practicum. Study, observation, and participation in publication or broadcast activities. Not for graduate credit. Prerequisite: consent of instructor and area head.
495-1 to 12 (1 to 6, 1 to 6) Proseminar. Selected seminars investigating media problems or other subjects of topical importance to advanced journalism majors. Seminars will be offered as the need and the interest of students demand. Prerequisite: senior standing.
500-3 Research Methodology in Mass Communication I.
501-3 Research Methodology in Mass Communication II.
504-3 Foundations of Mass Communication Theory.
505-3 Theoretical Issues in Mass Communication.
506-3 Significant Studies in Mass Communication Research.
510-3 Literature of Journalism.
511-3 Studies in Journalism History.
512-3 Press Freedom and Censorship.
520-3 Communication and National Development.
530-3 Historical Research in the Mass Media.
540-3 Legal and Governmental Research in the Mass Media.
550-1 to 12 (1 to 4, 1 to 4, 1 to 4) Topical Seminar.
560-3 Seminar: Critical and Persuasive Writing.
592-1 to 6 (1 to 2, 1 to 2, 1 to 2) Individual Research.
599-1 to 6 Thesis.
600-1 to 32 Dissertation.
601-1 to 12 per semester Continuing Research.

Language Arts and Social Studies (Major)

Bachelor of Science Degree, College of Education

General Studies Requirements		45
Requirements for Major in Language Arts and Social Studies		47[1]
Language Arts Requirements	25	
GSD 101, 117, 153	(7) + 1	
GSC 200	(3)	
GSC 365 or English 471 or 472	3	
English 290, 300, 302a, or 302b, 309, 481	15	
Curriculum, Instruction, and Media 361	3	
Curriculum, Instruction, and Media 445	3	
Social Studies Requirements	22	
GSB 300, 301, U.S. history elective	(6) + 3	
World history, 205a or 205b plus three hours at 300 or 400 level	6	
GSB 212, Political Science 213	7	
GSB 211 or an elective in either world history or political science	(3)	
GSA 330, Geography 300	(3) + 3	
GSB 203, 202, or 104	(3)	
Curriculum, Instruction, and Media 469	3	
Professional Education Requirements		25
See Teacher Education Program, page 77.		
Electives		3
Curriculum, Instruction, and Media 393, 402, 407, 455, or 462 strongly recommended.		
Total		120

[1]Although the hours shown in parentheses are required for the major, they also will count toward the 45 hour requirement in General Studies.

Latin American Studies (Major)

Southern Illinois University at Carbondale traditionally has had a strong interest in Latin America. An unusually large number of faculty specialists offers many courses related to that region and Morris Library contains an outstanding collection of Latin American materials. The University initiated its Latin American Studies Program in 1958 to prepare students for careers in business, education, and government and to serve others who desired more information about the nations south of the United States. An interdisciplinary program, it includes training in language, the social sciences, and humanities. Beyond the minimum core of courses required for the major, maximum flexibility is provided to tailor the curriculum to the needs and interests of the individual student.

Latin American studies majors also complete a minor or other approved coherent program (usually 15 to 18 hours) in a standard discipline or career specialty.

The College of Liberal Arts grants the Bachelor of Arts degree with a major in Latin American studies. The Latin American Studies Advisory Committee supervises the program. Interested students should consult the adviser for the Latin American studies major.

Bachelor of Arts Degree, College of Liberal Arts

General Studies Requirements		45
Supplementary College Requirements (See page 84.)		4-10
Requirements for Major in Latin American Studies		35
Required Core Curriculum	20	
History 370a, b; Political Science 366; Anthropology 470E; Spanish 201a, b and 306		
Latin American Electives	15	
Students may choose among 60 courses offered by thirteen departments to fulfill this requirement.		
Minor		15-18
Electives		12-21
Total		120

Law Enforcement (Program, Major)

(ALSO SEE CORRECTIONAL SERVICES)

Law enforcement today demands a wide range of knowledge and ability to meet the complexities of modern society. This program is designed both for the individual entering the profession and for persons already serving in law enforcement who wish to upgrade their skills.

Students in this program will not be taught "police skills" that are taught in a police academy, such as firearms or personal defense. They will learn methods of crime control, criminal behavior, methods of crime detection, community problems in law enforcement, criminal law, and police administration. They will develop an understanding of people and of interpersonal relationships.

The student will spend one term prior to graduation working under supervision with a police agency.

Police officers may enroll in the program on a part-time basis with the assurance that faculty members will help them to arrange classes compatibly with their duty schedules.

Full transfer of credit is guaranteed to students who have completed certificate programs in law enforcement at cooperating community colleges.

An advisory committee made up of persons active in law enforcement assists the program. Current members are: Capt. Raymond Niepert, commanding officer, Illinois State Police District 13, DuQuoin; W. Charles Grace, attorney at law, Murphysboro; Howard Hood, Jackson County State's Attorney, Murphysboro; Ed Hogan, Chief of Carbondale Police Department; and Don White, Jackson County Sheriff, Murphysboro.

This associate degree program can be completed in two academic years at Southern Illinois University at Carbondale or in a combination with community college or other acceptable extra-institutional educational experience.

Associate in Art Degree, School of Technical Careers

Requirements for Major in Law Enforcement

GSB 202, 203, 212	11
GSD 101, 118, 153	8
Correctional Services/Law Enforcement 103, 105, 108, 115, 205, 209, 210, 215, 220, 221	36
Electives	7
Total	62

Courses

(SEE CORRECTIONAL SERVICES/LAW ENFORCEMENT)

Liberal Arts (College, Courses)

Courses

105-3 Law in American Society. Faculty from the Departments of Economics, History, Philosophy, Political Science, Psychology, and Sociology consider the ways in which law affects American society. Topics such as students' rights, civil disobedience, crime, obscenity, and labor-management relations will be explored through lectures, discussion groups, guest speakers, and media presentation. Recommended for students who want to explore how the law works in society, and who want to consider possible careers in law. Elective Pass/Fail.

303-1 to 9 (1 to 3 per semester) Interdisciplinary Studies. Offered in a variety of forms, including lectures, readings, research, or field study. Initiated by at least two faculty members from different departments. Approval by the dean is required during the semester prior to its offering. May be repeated to equal a total of nine credits. Elective Pass/Fail.

310-3 Values in the Living World — Life, Normalcy, and the Natural. Intended for students who are interested in examining individual and social values which pertain to those professions based upon the biological sciences; e.g., medicine, nursing, zoology, forestry, etc. Elective Pass/Fail.

311-3 Values in the Communication Arts. The aim of this course is to examine, by means of readings, films and guest lecturers, some value perspectives of contemporary American life. This will be done in terms of ethical-aesthetic ideals and actual practices to be encountered in the public's most accessible and influential media; i.e., cinema, radio, television, and journalism. Elective Pass/Fail.

312-3 Applied Values in Society. A consideration of value problems and dilemmas faced by individuals in social science-based professions such as counseling, social welfare, administration of justice, etc. Among the problems to be considered are agency or corporate loyalty vs. individual conscience; individual good vs. social good; and professional ethics vs. individual ethics. Elective Pass/Fail.

Linguistics (Department, Major, Course)

The objective of the undergraduate major in linguistics is to provide broad, general training in theoretical and applied linguistics. The major is designed to

help students achieve an awareness of the language systems of the past, and appreciation of human modes of communication, a fundamental understanding of the ever-changing linguistic environment in which they live, and the processes by which language is acquired. Moreover, education in linguistic methods trains a student to think analytically, to evaluate hypotheses, and to propose new solutions. The analytical models of linguistics have, since the 1930's, been recognized by other disciplines (notably anthropology, psychology, and sociology) as significant research paradigms. Linguistic theory has also been enriched by insights and models from other disciplines. Students are encouraged to use their elective hours to explore the related areas of anthropology, computer science, English, foreign languages, mathematics, philosophy, psychology, sociology, speech communication, speech pathology and audiology, and statistics.

The major in linguistics consists of a minimum of 32 semester hours comprising: (1) 16-18 semester hours in a core of basic courses in general linguistics, 300 or 401, 301, 402a, 403 or 405, 408; and (2) various structured alternatives, dependent on whether the student is more interested in theoretical or applied linguistics. Students concentrating on theoretical linguistics are advised to take 9 semester hours of 415, 440, and either 430 or 450, plus 6 or 7 semester hours of departmental electives. Students concentrating on applied linguistics are advised to take 8 semester hours of 453, 454, 455, plus 8 semester hours of 456, 415, and 445.

There is a foreign language requirement, potentially overlapping the College of Liberal Arts requirements, as follows: (1) one year of an uncommon or non-Western language, or (2) two years of any foreign language. Students planning graduate study in linguistics should take three years of foreign language study.

Bachelor of Arts Degree, College of Liberal Arts

General Studies Requirements		45
Supplementary College Requirements (See page 84.)		(4) + 8-14
Requirements for Major in Linguistics		32
Linguistics 300 or 401, 301, 402a, 403 or 405, 408	16-18	
Theoretical Linguistics Electives: Linguistics 415, 440, 430 or 450, plus departmental electives	15-16	
or		
Applied Linguistics Electives: Linguistics 453, 454, 455, 456, 415, 445	16	
Foreign Language Requirements (overlapping with college requirements		10-16
Electives		13-25
Total		120

Minor

The Department of Linguistics offers two minors: one in linguistics and one in uncommon languages.

LINGUISTICS

The minor in linguistics (a minimum of 15 hours) draws upon the basic courses of the Department of Linguistics. It introduces the student to the structure of language, the historical development of languages, and the relation of language to the rest of culture. A minor in linguistics would be of special interest to students in anthropology, computer science, English, foreign languages and literatures, mathematics, philosophy, psychology, sociology, speech communication, and speech pathology and audiology.

Requirements for the minor in linguistics: (1) 300 or 401; (2) at least two courses (6-8 hours) from among the following: 301, 402a, 403, 405, 408; (3) additional

courses from among the following to complete at least 15 hours: 402b, 402c, 404, 415, 430, 431, 440, 450, 453, 497.

UNCOMMON LANGUAGES

The minor in uncommon languages consists of a minimum of 15 hours at 200-level or above of an uncommon language offered by the Department of Linguistics. For specific languages, see course offerings.

Students interested in linguistics should also consider taking GSD 104 or GSB 330 to help satisfy the General Studies requirements.

Courses

100-6 (3, 3) Oral English for Foreign Students. Four class hours of oral English and one hour in-class composition. An elective of foreign students admitted to the University in a graduate or undergraduate program. Cannot substitute for Linguistics 101, 102, or 103, but may be taken concurrrently. May be taken singly.

101-3 Basic English Composition for Foreign Students. Instruction in the basic methods of English composition, focusing on the particular problems of foreign students. Techniques of analyzing, summarizing, outlining, documenting, synthesizing, and revising. Basic English grammar relevant to composition problems of foreign students. Equivalent to GSD 101. Limited to foreign students selected by proficiency exam on entrance.

102-2 Expository Writing for Foreign Students. Principles of expository essay style; study and practice in various techniques of expository writing. Directed at the particular problems of foreign students. Advanced study of English grammatical structures. Equivalent of GSD 117. Limited to foreign students. Prerequisite: 101 or equivalent.

103-2 Technical Writing for Foreign Students. Principles of scientific and technical writing in English as a second language. Study and practice of the techniques of technical report writing. Directed at the particular problems of foreign students. Advanced study of grammatical tools and organization required for technical prose. Equivalent to GSD 118. Limited to foreign students. Prerequisite: 101 or equivalent.

210-10 (5, 5) Elementary Uncommon Languages. Introduction to the basic skills of listening, speaking, reading, writing, and the fundamentals of grammar. Must be taken in sequence. **(a-b)** Arabic, **(c-d)** Hebrew, **(e-f)** Persian, **(g-h)** Vietnamese, **(i-j)** Lao, **(k-l)** Cambodian.

290-3 Advanced English Composition for Foreign Students. Designed for foreign graduate and undergraduate students who need further work in composition in English as a foreign language (EFL) beyond their entering TOEFL scores or successful completion of Linguistics 101 and either 102 or 103. Both group activities and individualized supervision will be provided. Prerequisite: 101 and either 102 or 103; or graduate status. Elective Pass/Fail.

300-3 Introduction to Descriptive Linguistics. An introductory survey of synchronic, descriptive linguistics: assumptions, methods, goals, terminology, and data manipulation. Elective Pass/Fail.

301-3 Introduction to Historical and Comparative Linguistics. An introductory survey of historical and comparative linguistics: assumptions, methods, goals, terminology, and data manipulation. Elective Pass/Fail.

321-3 Survey of Vietnamese Literature. Readings and analysis of selected works of Vietnamese literature from the beginning to the present time.

341-3 Introduction to Intercultural Communication. (See Speech Communication 341.)

401-4 General Linguistics. Basic concepts and methods of general linguistics. Fundamentals of the nature, structure, and functioning of language. Data manipulation and problem solving. Elective Pass/Fail.

402-7 (3, 3, 1) Phonetics. **(a)** Theory and practice of articulatory phonetics. **(b)** Theory and practice of instrumental phonetics. Prerequisite: 402a. **(c)** Transcription laboratory. Prerequisite: 402a. May be taken singly. Elective Pass/Fail.

403-3 English Phonology. Study of English phonology, both American and British, including phonetics, phonemics, and prosodics. Prerequisite: 300 or 401, and 402a, or consent of department. Elective Pass/Fail.

404-3 American Dialects. Regional variation and social stratification of American English. Phonological and syntactic differences among the major dialects of American English. Prerequisite: one previous course in linguistics. Elective Pass/Fail.

405-4 Phonological Theories. A survey of various phonological theories involving the phoneme from the 19th century up to the present, including theoretical issues arising therefrom and relationships among the theories. Limited data analysis within the perspective of the different theories. Prerequisite: 300 or 401, and 402a. Elective Pass/Fail.

408-4 Syntactic Theory. Basic concepts and formalisms of transformational generative grammar. Data manipulation and problem-solving in English syntax. Prerequisite: 300 or 401 and 430 or consent of department. Elective Pass/Fail.

410-10 (5, 5) Intermediate Uncommon Languages. Review of the structure of modern spoken language. Introduction to written language. Emphasis on conversational style. The first semester carries undergraduate credit only. (g-h) Vietnamese, (i-j) Lao, (k-l) Cambodian. Prerequisite: 210 or equivalent.
411-3 The Linguistic Structure of Chinese. (See Chinese 410.)
412-3 The Linguistic Structure of Japanese. (See Japanese 410).
415-3 Sociolinguistics. History, methodology, and future prospects in the study of social dialectology, linguistic geography, multilingualism, languages in contact, pidgin and creole languages, and language planning. Prerequisite: one previous course in linguistics or consent of department. Elective Pass/Fail.
420-8 (4, 4) Advanced Uncommon Languages. Advanced conversation and reading of third-year level materials in preparation for classes conducted in the language. (g-h) Vietnamese, (i-j) Lao, (k-l) Cambodian. Prerequisite: 410 or equivalent.
422-3 Contemporary Vietnamese Prose. Open to advanced students. Short stories, novels, and essays (main trends and evolution). Emphasis on works of prominent authors since 1920, such as Nguyen V. Vinh, Pham Quynh, H. N. Phach, Nguyen T. Thuat, P. K. Binh, Khai Hung, and the recent generation. Prerequisite: 321 and 410.
423-2 Vietnamese Poetry. Classical and modern poetry. Emphasis on masterpieces and leading figures such as Nguyen Trai, Nguyen Binh Khiem, the authors of Chinh Phy Ngam and Cung Oan, Nguyen Huy Tu, Nguyen Du and the Kim Van Kieu, Nguyen Cong Tru, and the new poetry with the impact foreign poetry had on it. Prerequisite: 321 and 410.
424-2 Modern Vietnamese Drama. Hat boi (Vietnamese Opera), Hat cheo (Popular Theater from North Vietnam), Cai luong (Modernized Opera and Musical), Thoai kich (Modern Theater), and Kich tho (Lyric Theater). Emphasis on the main plays, the stage techniques, and the literary and social meaning of those various forms of Vietnamese theater. Prerequisite: 321 and 410.
430-3 to 6 (3, 3) Grammatical Structures. Detailed analysis of the structure of particular languages. May be repeated to a total of six hours credit with consent of department. Prerequisite: one previous course in linguistics or consent of department. Elective Pass/Fail.
431-3 Structure of the English Verb. An analysis of the English verb system. Special study of the modals and non-finites. Elective Pass/Fail.
440-1 to 6 (1 to 3 per topic) Topics in Linguistics. Selected topics in theoretical and applied linguistics. May be repeated to a total of six hours credit with consent of department. Prerequisite: one previous course in linguistics or consent of department. Elective Pass/Fail.
445-4 Introduction to Psycholinguistics. A broad spectrum introduction to psycholinguistics. Topics to be covered include general methodology for the study of psycholinguistics, the nature of language, theories of human communication, language comprehension and production, first and second language acquisition, meaning and thought, natural animal communication systems, and language and the brain.
450-3 to 6 (3, 3) Language Families. A synchronic survey of particular language families or sub-families. May be repeated to a total of six hours credit with consent of department. Prerequisite: one previous course in linguistics or consent of department. Elective Pass/Fail.
453-4 Methods in Teaching English as a Second Language. Introduces the basic methods of teaching English as a second language, specifically as part of bilingual programs, and presents the theoretical premises and background from the fields of general linguistics, contrastive linguistics, psycholinguistics, education, and sociolinguistics. Elective Pass/Fail.
454-2 Observation and Practice in TESL. Lessons in teaching English as a second language are modeled and demonstrated live and via video-tape. In addition to micro-teaching and other peer-teaching, students observe ESL/EFL classes and laboratories and do tutoring and practice teaching under supervision as schedulable. Enrollment limited to undergraduates. Mandatory Pass/Fail.
455-2 Materials in TESL. Examination and criticism of currently used textbooks in ESL and bilingual education programs, as well as other printed materials and visual and mechanical aids in teaching English as a second language. Prerequisite: 453 or consent of department. Elective Pass/Fail.
456-1 Contrastive Linguistics Practicum. Examination of the interference of other languages, particularly Spanish, in the English of ESL learners on the levels of phonetics, phonology, morphology, syntax, lexicon, semantics, and orthography. Study of written and spoken errors, diagnosis of errors and development of techniques for correction. Prerequisite: 453 or consent of department. Elective Pass/Fail.
497-1 to 8 Readings in Linguistics. Directed readings in selected topics. Prerequisite: consent of department and undergraduate status.
501-3 Contrastive Linguistics.
504-3 Dialectology.

506-4 Historical Linguistics.
510-3 History of Linguistics.
530-3 to 6 (3, 3) Historical Grammatical Structures.
540-1 to 12 (1 to 3 per topic) Studies in Linguistics.
545-3 Advanced Seminar in Psycholinguistics.
550-4 to 8 (4 per topic) Seminar in Linguistics.
570-3 Theory and Methods of EFL/ESL.
571-2 Language Laboratories in EFL/ESL.
572-2 Materials Preparation in EFL/ESL.
575-2 EFL/ESL Testing.
580-3 Seminar in Special Problems of EFL/ESL.
581-2 Practicum in EFL/ESL: Oral English.
585-2 Practicum in EFL/ESL: Written English.
593-1 to 4 Research in Linguistics.
596-3 Stylistics.
597-1 to 8 Readings in Linguistics.
599-1 to 6 Thesis.
601-1 to 12 per semester Continuing Research.

Marketing (Department, Major, Courses)

Marketing deals with all activities required to link production of goods and services with their use. The emphasis in all courses is upon the development of an analytical approach to the creative solution of marketing problems. The department will assist students in arranging suitable course sequences to prepare for careers in such fields as retailing, sales management, industrial marketing, physical distribution, promotional management, international marketing, and marketing administration.

Bachelor of Science Degree, College of Business and Administration

General Studies Requirements	45-46
Professional Business Core (See page 74.)	47-48
Requirements for Major in Marketing	21
Marketing 329, 363, 390, 493	12
Marketing Electives	9
Electives	5-7
Total	120

Courses

304-3 Marketing Management. Management of the firm's marketing function within a dynamic operating environment. Includes study of such functions as product development, promotion, channel selection, logistics and market research. Prerequisite: junior standing or higher.
305-3 Behavioral and Social Aspects of Marketing. Examines underlying psychological, sociological, and economic factors which influence consumer behavior. Studies the impact of marketing activities on society, consumerism and legislation affecting the marketplace. Prerequisite: junior standing or higher.
329-3 Marketing Channels. The methods and processes used in the distribution of consumer and industrial products and services. Emphasis is upon the ways in which certain basic distribution functions are carried out in an integrated channel system. The role of a variety of manufacturers, wholesalers and retailers as parts of this system is analyzed. Prerequisite: 304 and junior standing or higher.
336-3 International Business. Business activities of firms and social organizations are examined in an international environment. The course will examine the fundamental concepts, and principles of international business. It will focus on the international environment as the international dimension of marketing, financial, accounting, managerial, and production functions. Prerequisite: junior standing or higher.
341-3 Transportation. Organization and economic aspects of the United States transportation system, including rail, highway, air, pipeline, and water transportation. Regulatory problems of transportation. Current transportation developments and situations. Prerequisite: junior standing or higher.
350-3 Small Business Marketing. Deals with principles involved in locating market opportunities and developing growth plans for businesses requiring a relatively low initial

capital investment. Taught from the point of view of the owner-manager relying heavily upon case examples of successful entrepreneurship. Prerequisite: junior standing or higher.

363-3 Promotional Concepts. The role of promotional activities in the firm's marketing function — advertising, personal selling, sales promotion and publicity. The relationship of consumer behavior to the area of promotion. Prerequisite: 304 and junior standing or higher.

390-3 Marketing Research and Analysis. The basic procedures and theories appropriate to solving various types of marketing problems in the context of business organization and decision models. Prerequisite: 304 and Administrative Sciences 208 or equivalent and junior standing or higher.

401-3 Retail Management. Designed to present the basic principles in decision areas such as location, layout, organization, personnel, merchandise control, sales promotion, advertising, etc. Retail merchandising through managerial perspective. Prerequisite: 304 and junior standing or higher.

435-3 International Marketing. Analysis of international operations. Emphasis on the factors influencing marketing to and within foreign countries and the alternative methods of operations open to international firms. Prerequisite: 304 and junior standing or higher.

438-3 Sales Management. Analysis of the management of the sales effort within the marketing system. Philosophies, concepts, and judgment criteria of the sales function in relationship to the total marketing program. Prerequisite: 304 and Administrative Sciences 304 or 301 and junior standing or higher.

439-3 Industrial Marketing. Analysis of decision criteria related to the marketing of industrial products. Emphasis on program development, formulation of a marketing mix, and the behavioral relationships in the modern industrial organization. Prerequisite: 304 and junior standing or higher.

452-3 Physical Distribution Managment. Integration of physical distribution activities of the firm into a system. Transportation and location as elements of the system. Inventories and service as constraints upon the system. Planning, operation, organization, and management of the system. Prerequisite: 304 and junior standing or higher, or consent of the department.

463-3 Advertising Managment. Advertising from the viewpoint of business management. Develops an understanding of the role of advertising under various conditions. Problems of integrating advertising strategy into the firm's total marketing program. Prerequisite: 304 and 363 and junior standing or higher.

493-3 Marketing Policies. A comprehensive and integrative view of marketing policy formulation. Marketing decisions anaylzed and discussed. Prerequisite: 329, 363, and 390 (not more than one to be taken concurrently) and junior standing or higher.

499-1 to 6 (1 to 3, 1 to 3) Marketing Insights. Provides the student an opportunity to participate in an internship program, independent study, or seminar coinciding with areas of interest. May be repeated for credit only when topics vary. Prerequisite: junior standing or higher, and approval of the instructor and the department chairperson in the semester prior to enrollment.

Mathematics (Department, Major, Courses)

Students intending to major in mathematics must plan schedules of mathematics courses numbered above 299 with a mathematics adviser. At least a *C* is required in all mathematics courses used to satisfy departmental requirements.

Bachelor of Arts Degree, College of Liberal Arts

General Studies Requirements 45
Supplementary College Requirements (See page 84.) ..... (4) + 8-14
Requirements for Major in Mathematics 37
(Pass/Fail grade not acceptable)
Mathematics 150 (151 or 159 may substitute), 250 (259 may substitute), 251, 221 ..... (4) + 10
Computer Science 202 ..... (3)
Mathematics electives: seven courses at the 300-400 level, of which at least four are at the 400 level, excluding 301, 311, 313, 314, 400, 411, 432, 453, but including 319 (or 419) and 352 (or 452) 21
Foreign Language (French, German, or Russian recommended) ..... (8)

Six hours in one of the following areas, selection to be after the approval of the department: (a) engineering, (b) computer science, (c) any department in the College of Science, (d) economics, (e) College of Business and Administration	6
Electives	24-30
Total	120

Bachelor of Science Degree, College of Science

General Studies Requirements	45[1]
College of Science Requirements	12
Foreign Language (listed under major)	
Biological Sciences (not General Studies)	6
Physical Sciences (not General Studies)	6
Requirements for Major in Mathematics	38
(Pass/Fail grade not acceptable)	
Mathematics 150 (151 or 159 may substitute), 250 (259 may substitute), 251, 221	(4) + 10
Computer Science 202	3
Mathematics electives: seven courses at the 300-400 level, of which at least four are at the 400 level, excluding 301, 311, 313, 314, 400, 411, 432, 453, but including 319 (or 419) and 352 (or 452)	21
Foreign Language (French, German or Russian recommended)	(4) + 4
Electives	25
Total	120

[1]The 45 hour requirement may be reduced by taking College of Science requirements which are approved substitutes for General Studies courses.

Bachelor of Science Degree, College of Education

Students in the College of Education with a major in mathematics must plan schedules of mathematics courses numbered above 199 with a mathematics adviser. Grades must be at least a *C* in mathematics courses numbered 150 or above used to satisfy these requirements.

General Studies Requirements	45[1]
Requirements for Major in Mathematics	33-34
Mathematics 150 (151 or 159 may substitute), 250 (259 may substitute)	(4) + 4
Mathematics 221	3
A student may take some of the above courses by proficiency examination or may substitute honors calculus for calculus.	
Computer Science 202	3
Mathematics 311, 319, (or 419), 335, and 352 (or 452)	13
Mathematics 319E and 352E	2
At least 3 additional mathematics courses numbered above 399	8-9
Professional Education Requirement	25
See Teacher Education Program, page 77.	
Electives	16-17
Total	120

[1]See Catalog section titled Curriculum, Instruction, and Media for specific certification requirements.

Unconditional admission into the Teacher Education Program in mathematics requires a 2.5 average in mathematics courses numbered above 149, including a grade of *C* or better in at least two mathematics courses numbered above 299 (not including Mathematics 311, 313, 314, 400, 411, or 432.)

Approval for student teaching requires a grade of *C* or better in Mathematics 311 and a 2.25 average in mathematics courses numbered above 299, including a grade of *C* or better in at least four other mathematics courses (not including Mathematics 313, 314, 400, 411, or 432.) Students with a minor in mathematics must also meet this requirement to student teach in mathematics.

Minor

A non-teaching minor consists of Mathematics 150, or 140, or equivalent and 12 hours of mathematics credit at the 200 level or above, including at least one course at the 400 level (excluding 301, 311, 313, 314, 400, 411, and 432). Courses should be approved by a mathematics departmental adviser. Elementary and secondary education students interested in a mathematics minor should see a mathematics departmental education adviser to obtain a current list of specific requirements. A grade of *C* or better must be earned in all courses used to meet minor requirements.

Honors

Mathematics 159 and 259 provide honors material in calculus and analytic geometry for properly qualified freshman and sophomore students. Mathematics 395 and 495 are used for individual honors work for upper level undergraduates in mathematics.

Courses

101-1 Mathematics Review for Pre-Law. Sample questions and problems related to mathematics and law school admission examinations. Fall only. Two hours weekly for half-semester. Mandatory Pass/Fail.

110-5 (3, 2) College Algebra and Trigonometry. A two-semester sequence version of the course Mathematics 111. Students with two or more years of high school algebra and no trigonometry should begin with 110b. Credit is not given for both 110 and 111. Prerequisite: GSD 107 or one and one-half years of high school algebra or the equivalent. Elective Pass/Fail.

111-5 College Algebra and Trigonometry. For students with one and one-half years of high school algebra who intend to take 150. The algebra of functions; exponential, logarithmic, and trigonometric functions; functions of two variables. Credit is not given for both 110 and 111. Prerequisite: GSD 107 or one and one-half years of high school algebra or the equivalent. Elective Pass/Fail.

114-4 Algebraic and Arithmetic Systems. Whole numbers, integers, rational numbers, and real numbers; numeration systems; algorithms; number theory; elementary algebra. Successful completion of this course requires a passing grade on a basic skills test of minimal mathematical proficiency. This course can be used to satisfy the mathematics requirements in General Studies. Prerequisite: one year of high school algebra or GSD 106 or equivalent.

116-5 Finite Mathematics and Algebra. Topics from intermediate algebra and college algebra, systems of linear equations, matrix algebra, Gauss-Jordan row reduction, linear programming, elementary probability theory, emphasis on business applications. Credit is not given for both 116 and 139. If there is prior credit in GSD 107, 110a, or 111, only 3 hours of credit for 116 may be applied to graduation requirements. This course can be used to satisfy the mathematics requirement in General Studies. Prerequisite: one year of high school algebra or GSD 106.

117-5 Finite Mathematics and Calculus. A continuation of 116. Topics in algebra, elementary differential calculus, max-min problems emphasizing business applications, partial derivatives, elementary integral calculus with applications in economics. Credit hours for both 117 and 140 or for both 117 and 141 may not be applied to fulfillment of degree requirements. No credit hours for 117 may be applied to fulfillment of degree requirements if there is prior credit in 150. Prerequisite: 116.

139-3 Finite Mathematics. Set concepts and operations, combinations, permutations, elementary probability theory including Bayes formula, linear systems of equations, matrix algebra, Gauss-Jordan row reduction, introduction to linear programming. Credit is not given for both 116 and 139. Prerequisite: GSD 107 or one and one-half years of high school algebra.

140-4 Short Course in Calculus. Techniques of differentiation, increasing and decreasing functions, curve sketching, max-min problems in business and social science; partial derivatives, LaGrange multipliers, elementary techniques of integration. Credit hours for both 117 and 140 or for both 140 and 141 may not be applied to fulfillment of degree requirements. No credit hours for 140 may be applied to fulfillment of degree requirements if there is prior credit in 150. Prerequisite: GSD 107 or one and one-half years of high school algebra.

141-4 Short Course in Calculus for Biological Sciences. Basic techniques of differentiation and integration. Population and organism growth problems solved by using calculus. Translation of physical problems in the biological sciences into mathematical problems. Credit hours for both 141 and 117 or for both 141 and 140 may not be applied to fulfillment of degree requirements. No credit hours for 141 may be applied to fulfillment of degree requirements if there is prior credit in 150. Prerequisite: 111 or equivalent.

150-4 Calculus I. Treatment of the major concepts and techniques of single-variable calculus, with careful statements but few proofs. Differential and integral calculus of the elementary functions with associated analytic geometry. Students interested in honors credit should see Mathematics 159. If there is prior credit in 140, 117, or 141, only 2 hours credit for 150 may be applied to graduation requirements. Prerequisite: 111 or equivalent. Elective Pass/Fail.

151-5 Calculus I with Algebra. Designed to include a modest review of high school algebra and trigonometry as well as all course material in 150. Credit is not given for both 150 and 151 nor for both 159 and 151. Prerequisite: three years of high school mathematics including two years of algebra and one-third year of trigonometry, or consent of department.

159-4 Honors Calculus I. Honors version of 150. Careful treatment of the major concepts and techniques of single-variable calculus. Credit is not given for both 150 and 159. Prerequisite: consent of department.

221-3 Introduction to Linear Algebra. Vector spaces, linear functions, systems of equations, dimensions, determinants, eigenvalues, quadratic forms. Prerequisite: 150. Elective Pass/Fail.

250-4 Calculus II. Develops the techniques of single-variable calculus begun in Calculus I and extends the concepts of function, limit, derivative, and integral to functions of more than one variable. The treatment is intuitive, as in Calculus I. Techniques of integration, introduction to multivariate calculus, elements of differential equations. Students interested in honors credit should see Mathematics 259. Prerequisite: 150. Elective Pass/Fail.

251-3 Calculus III. Further topics in calculus. Definite integrals over solid regions, applications of partial derivatives, vectors and vector operators, derivative of vector function, line integrals, Green's theorem. Prerequisite: 250. Elective Pass/Fail.

257-1 to 12 Concurrent Work Experience. As an instructional aide, the student will do tutoring under the direction of an established teacher and under the supervision of a representative of the Department of Mathematics. Prerequisite: consent of department. Mandatory Pass/Fail.

259-4 Honors Calculus II. An honors version of 250. Develops the techniques of single-variable calculus and extends the concepts of function, limit, derivative, and integral to functions of more than one variable. Credit is not given for both 250 and 259. Prerequisite: 159 or consent of department.

280-3 Introduction to Probability Theory. Probability as a mathematical system, random variables and their distributions, limit theorems, topics in statistical inference. Prerequisite: 150 (250 recommended). Elective Pass/Fail.

282-3 Introduction to Statistics. Designed to introduce beginning students to basic concepts, techniques, and applications of statistics. Topics include the following: organization and display of data, measures of location and dispersion, elementary probability, statistical estimation, and parametric and nonparametric tests of hypotheses. Prerequisite: three semester hours of college mathematics beyond general studies mathematics; e.g. any of 111, 117, 139. Elective Pass/Fail.

283-3 Introduction to Applied Statistics. This course is experiment motivated, uses real-work data, and computer analysis of data. Statistical concepts discussed are descriptive statistics, elementary probability, expectation, sampling distributions, statistical estimation and testing, confidence intervals, correlation and regression, and contingency tables. The student is given experience in writing reports of experiments. Prerequisite: 140. Elective Pass/Fail.

301-3 Introduction to Discrete Structures. (Same as Computer Science 342.) Sets, relations, and functions. Elements of graph theory with emphasis on algorithms and applications to computing problems. Boolean algebras with applications to computer logic and logical design. Prerequisite: 111 and Computer Science 202 or consent of either department.

305-3 Introduction to Ordinary Differential Equations I. Solution techniques for differential equations with emphasis on second order equations, applications to physical sciences, numerical methods. Prerequisite: 250. Elective Pass/Fail.
306-3 Introduction to Ordinary Differential Equations II. Laplace transforms and Fourier series with applications to ordinary and partial differential equations. Systems of first order differential equations, stability. Prerequisite: 305 or consent of instructor. Elective Pass/Fail.
311-4 Teaching of Secondary Mathematics. The nature and objectives of the secondary mathematics curriculum. Particular attention is given to the means of introducing new ideas into the high school program. For students preparing to be certified teacher of secondary mathematics. Three lectures and two laboratory hours per week. Does not count toward a mathematics major in the College of Liberal Arts or in the College of Science. Prerequisite: 319, 319E, and 335.
313-3 Mathematical Insights. Introduction to the conceptual aspects of modern mathematics. Starting with simple questions about such things as sets, area, and games, the student is led to an appreciation of the necessity for preciseness in a mathematical theory. Prerequisite: completion of the general studies mathematics requirement. Elective Pass/Fail.
314-3 Topics in Mathematics for Elementary Teachers. Measurement, metric system; geometric figures, transformations; symmetry, congruence, similarity; combinatorics, probability. This course may not be used to satisfy requirements for a mathematics major. Prerequisite: 114 or consent of department.
319-3 Introduction to Abstract Algebra. Basic properties of groups and rings: Binary operations, groups, subgroups, permutations, cyclic groups, iso-morphisms, Cayley's theorem, direct products, cosets, normal subgroups, factor groups, homomorphisms, rings, integral domains. Prerequisite: 250; plus for secondary education majors, concurrent enrollment in 319E. Elective Pass/Fail.
319E-1 Modern Algebra as Applied to the Secondary Schools. Two hours per week. The applicability of the concepts of modern algebra, particularly the field axioms and the function concept, to the secondary curriculum. Prerequisite: concurrent enrollment in 319. Mandatory Pass/Fail.
335-3 Concepts of Geometry. An elementary introduction to various geometric systems to acquaint the students with the inter-relationship between geometries of current interest. Topics include axiom systems, absolute plane geometry, Euclidian geometry, and non-Euclidean geometry. Prerequisite: 221 or 250. Elective Pass/Fail.
352-3 Introduction to Analysis. A rigorous treatment of concepts introduced in elementary calculus, such as real number system, limits and continuity, derivatives, integration, transcendental functions. Prerequisite: 250; plus for secondary education majors, concurrent enrollment in 352E. Elective Pass/Fail.
352E-1 Analysis as Applied to the Secondary Schools. Two hours per week. Sequences, series, infinite decimals, continuity. Applications to the secondary curriculum. Prerequisite: concurrent enrollment in 352. Mandatory Pass/Fail.
361-3 Numerical Calculus. (See Computer Science 361.)
383-3 Introduction to Linear Models. Elementary course in multiple linear regression and analysis of variance, emphasizing applications as opposed to theory. Students learn to read print-outs of standard canned statistical packages (e.g., SPSS). Linear models, response surfaces, time series, elementary design techniques, least squares prediction, F-tests in Anova, the use of canned programs. Not for mathematics majors. Prerequisite: 282 or 283 and 116 or 139; or consent of instructor.
395-1 to 6 Readings in Mathematics. Supervised reading in selected subjects. Prerequisite: 3.00 grade point average in mathematics and consent of chairperson.
400-2 History of Mathematics. An introduction to the development of major mathematics concepts. Particular attention given to the evolution of the abstract concept of space, to the evolution of abstract algebra, to the evolution of the function concept, and to the changes in the concept of rigor in mathematics from 600 B.C. Does not count toward a mathematics major in the College of Liberal Arts or in the College of Science. Prerequisite: 319 and 352 or consent of instructor. Elective Pass/Fail.
405-3 Intermediate Ordinary Differential Equations. Topics selected from linear systems, existence and uniqueness for initial value and boundary value problems, oscillation, and stability. Prerequisite: 306. Elective Pass/Fail.
406-3 Eigenfunction Methods in Applied Mathematics. Inner product spaces; orthonormal systems; Bessel's inequality; quadratic forms; Hermitian operators; eigenfunctions and eigenvalues; minimization properties of eigenfunctions; the spectral theorem for a Hermitian matrix; functions of matrices; Sturm-Liouville differential operators; convergence properties of Fourier Series; the Legendre, Laguerre, Hermite, and Tchebycheff families of orthogonal polynomials; functions of a Sturm-Liouville operator; Green's functions; the Laplacian operator in 1, 2, and 3 dimensions. Prerequisite: 221 and 305. Elective Pass/Fail.

407-3 Introduction to Partial Differential Equations. First order linear and quasilinear partial differential equations, characteristics, second order linear partial differential equations, classification of types, boundary value and initial value problems, well posed problems, the wave equation, domain of dependence, range of influence, Laplace's equation and Dirichlet problems, the maximum principle. Poisson's integral, fundamental solution of the heat solution. Prerequisite: 305. Elective Pass/Fail.

411-1 to 6 (1 to 3, 1 to 3) Mathematical Topics for Teachers. Variety of short courses in mathematical ideas useful in curriculum enrichment in elementary and secondary mathematics. May be repeated as topics vary. Does not count toward a mathematics major. Elective Pass/Fail.

412-3 Problem Solving Approaches to Basic Mathematical Skills. Content of basic skills at all levels of education and the development of these skills from elementary school through college; emphasis on problem solving and problem solving techniques; determination of student skills and proficiency level. Credit may not be applied toward degree requirements in mathematics. Prerequisite: 314 or equivalent.

417-3 Applied Matrix Theory. Matrix algebra and simple applications, simultaneous linear equations, linear dependence and independence of vectors, rank and inverses, determinants, eigenvalues and eigenvectors, quadratic forms, applications. This course may not be counted toward a graduate degree in mathematics. Prerequisite: 139 or 221 or consent of department. Elective Pass/Fail.

419-4 Algebraic Structures I. Groups, subgroups, normal subgroups and homomorphism theorems, permutation groups, finite direct products, finite abelian groups, p-groups and Sylow's theorem, normal and subnormal series, Jordan Holder theorem. Rings and subrings, divisibility theory in integral domain, polynomial rings. Prerequisite: 319 or consent of department. Elective Pass/Fail.

421-3 Linear Algebra. Fields, vector spaces over fields, triangular and Jordan forms of matrices, dual spaces and tensor products, bilinear forms, inner product spaces. Prerequisite: 221. Elective Pass/Fail.

425-3 Theory of Numbers. Properties of integers, primes, divisibility, congruences, quadratic forms, diophantine equations, and other topics in number theory. Prerequisite: 319 or consent of department. Elective Pass/Fail.

426-3 Introduction to Mathematical Logic. (Same as Philosophy 426.) General introduction to the method of mathematical logic, forming of denials, the statement calculus including the deduction and completeness (with respect to truth tables) theorems, and the predicate calculus including the deduction theorem, deduction techniques; (in the predicate calculus) normal forms and equality, first order theories, first order number theory, consistency, truth (in the model-theoretic sense), completeness theorem (with respect to the model-theoretic definition of validity), independence, categoricity, decidability, and a brief introduction to Gödel's theorem. Prerequisite: 301, 319, 352, or Philosophy 320. Elective Pass/Fail.

432-4 Philosophy of Mathematics. (See Philosophy 432.) Prerequisite: Philosophy 320 or 15 hours of mathematics. Elective Pass/Fail.

433-3 Introduction to Topology. Study of continuity, convergence, compactness, and completeness in the context of metric spaces. Prerequisite: 352 or consent of department. Elective Pass/Fail.

435-3 Elementary Differential Geometry. An introduction to modern differential geometry through the study of curves and surfaces in R^3. Local curve theory with emphasis on the Serret-Frenet formulas; global curve theory including Fenchel's theorem; local surface theory motivated by curve theory; global surface theory including the Gauss-Bonnet theorem. Prerequisite: 251 and 221. Elective Pass/Fail.

437-3 Elementary Algebraic Topology. Topological spaces; continuous maps. Finite products. Connectivity. Compactness. Manifolds. Classification of surfaces. Homotopic maps. Fundamental group. Covering spaces. Lifting theorem. Prerequisite: 319. Elective Pass/Fail.

445-3 Boolean Algebra and Logical Design. (Same as Computer Science 445.) Boolean algebra with applications to computer logic and circuit design. Simplification algorithms. Sequential circuits and sequential machines. Introduction to error-correcting codes. Prerequisite; 319, 301 or Computer Science 342.

449-3 Combinatorics and Graph Theory. (Same as Computer Science 449.) An introduction to graph theory and combinatorial mathematics with computing applications. Topics include permutations and combinations, generating functions, recurrence relations, the principle of inclusion and exclusion. Polya's theory of counting, graph theory, transport networks, matching theory, block designs. Prerequisite: 301 or 319 or consent.

451-3 Introduction to the Theory of Computing. (See Computer Science 451.)

452-4 Advanced Calculus. Fundamental concepts of analysis; infinite series, functions and series of functions, uniform convergence, functions of bounded variation, Riemann-Stieltjes integral, functions of several variables, implicit functions and extreme values. Prerequisite: 352 or consent of department. Elective Pass/Fail.

453-3 Topics in Applied Mathematics. (Same as Molecular Science 400M.) Selected topics in applied mathematics for students in the physical, biological, and engineering sciences: functions of several independent variables, Jacobians and implicit functions, Lagrange multipliers, Stokes theorem and the divergence theorem, initial and boundary value problems in ordinary and partial differential equations, approximate solutions of initial value problems, Eigenfunction methods for solving boundary value problems. Does not count toward mathematics major. Prerequisite: 251 or consent of instructor.
455-3 Introduction to Complex Analysis and Applications. Complex numbers, analytic functions, line integrals, the Cauchy-Goursat theorem and its implications, power series, Laurent series, polar and essential singularities, analytic continuation, contour integration, and the residue theorem, conformal mapping, asymptotic expansions. Prerequisite: 251. Elective Pass/Fail.
457-5 Methods of Quantitative Analysis. (Same as Business Administration 451.) Introductory survey of basic quantitative methods necessary for graduate study in business; designed for students with deficiencies in methods of quantititative analysis. Course consists of introduction to calculus, matrix algebra, and probability. Extensive use is made of business examples. Prerequisite: enrollment in Master of Business Administration program or consent of instructor.
460-3 Transformation Geometry. Geometry as the study of properties invariant under congruences, similarities, affine transformations, and projectivities. Prerequisite: 221 and 319. Elective Pass/Fail.
471-3 Introduction to Optimization Techniques. (Same as Commputer Science 471.) Nature of optimization problems. General and special purpose methods of optimization, such as linear programming, classical optimization, separable programming, integer programming, and dynamic programming. Prerequisite: 221, 250, Computer Science 202.
472-3 Linear Programming. (Same as Computer Science 472.) Nature and purpose of the model. Development of the simplex method. Application of the model to various problems. Introduction to duality theory. Transportation and network flow problems. Postoptimality analysis. Prerequisite: 139 or 221; and Computer Science 202.
473-3 Reliability Theory. Formulation of the concept of reliability in term of probability theory. Failure distributions and failure rates. Elements of renewal theory. Age and block replacement policies, optimal replacement policies for classes of failure distributions. Prerequisite: consent of department. Elective Pass/Fail.
475-6 (3, 3) Numerical Analysis. (Same as Computer Science 464.) An introduction to the theory and practice of computation with special emphasis on methods useful with digital computers. Topics include the solution of nonlinear equations, interpolation and approximation, numerical differentiation and integration, solution of differential equations, matrix calculations and the solution of systems of linear equations. Must be taken in a,b sequence. Prerequisite: 221, 250, Computer Science 202.
480-4 Introduction to Probability. This is a comprehensive introduction to probability theory at a level suited to most upper division undergraduates and first year graduate students. Topics include: event spaces, probability functions, combinatorics, generating functions, conditional probability, independence, random variables, probability distributions, expectations, moments, characteristic functions, inversion formulae, sums of independent random variables, the multivariate normal distributions, the central limit theorem, the weak and strong laws of large numbers, Monte Carlo applications. Prerequisite: 251. Elective Pass/Fail.
481-3 Elements of Stochastic Processes. An introduction, including normal, Poisson, and Markov processes. Prerequisite: 480. Elective Pass/Fail.
483-4 Introduction to Mathematical Statistics. Development of the elements of statistical theory. Probability axioms, probability distributions, moments and moment generating functions. Statistical inference, point and interval estimation, testing hypotheses, regression and correlation, chi-square tests. Not for graduate credit in mathematics. Prerequisite: 250. Elective Pass/Fail.
486-3 Design of Experiments. A mathematical model development of the statistical design and analysis of experiments with emphasis on practical applications. Includes completely randomized, randomized block, Latin square, split plot, incomplete block, and response surface designs, as well as factorial and fractional factorial experiments. Prerequisite: 483. Elective Pass/Fail.
487-3 Nonparametric Methods in Statistics. A discussion of confidence intervals and tests of hypotheses where no functional form is postulated for the population. Prerequisite: 483 or 480. Elective Pass/Fail.
488-3 Linear Statistical Models. An introduction to the general linear model in both the univariate and multivariate cases and its applications. Included is a basic discussion of linear models, estimable functions, estimation spaces, error spaces, and such applications as regression analysis, growth curve analysis, discriminant analysis and canonical analysis. Prerequisite: 221 and 483. Elective Pass/Fail.
489-3 Sample Survey Methods. Introduction to methods for sampling human populations, wildlife populations. and spatial distributions, and associated methods of data

analysis. Emphasis will be given to criteria for choosing the appropriate sampling design and to the avoidance of nonsampling errors. Prerequisite: 483 or consent of instructor.
495-1 to 6 Special Topics in Mathematics. Individual study or small group discussions in special areas of interest under the direction of a member of the faculty. Prerequisite: consent of chairperson and instructor. Elective Pass/Fail.
501-3 Real Analysis.
505-3 Ordinary Differential Equations.
506-1 to 9 Advanced Topics in Ordinary Differential Equations.
507-3 Partial Differential Equations.
508-3 Integral Equations.
510-3 Mathematical Logic.
512-3 to 12 (3 per topic per semester) Topics in Mathematical Logic.
514-4 General Statistical Analysis.
515-4 Linear and Multivariate Statistical Methods.
516-8 (4, 4) Statistical Analysis in the Social Sciences.
520-3 Algebraic Structures.
522-3 to 9 per topic (3, 3, 3) Advanced Topics in Algebra.
525-3 Number Theory.
526-3 to 9 per topic (3, 3, 3) Advanced Topics in Number Theory.
528-3 Formal Languages and Automata.
529-3 Theory of Computability.
530-3 General Topology.
531-3 Algebraic Topology.
532-3 to 9 per topic (3, 3, 3) Advanced Topics in Topology.
536-3 Differential Geometry.
537-3 to 9 per topic (3, 3, 3) Advanced Topics in the Topology and Geometry of Manifolds.
550-1 to 6 per topic (1 to 3 per semester) Seminar.
551-3 Introduction to Functional Analysis.
552-3 to 9 per topic (3, 3, 3) Special Topics in Analysis.
553-3 to 9 (3, 3, 3) Special Topics in Functional Analysis.
555-3 Complex Variables.
560-3 Calculus of Variations.
567-6 (3, 3) Econometrics I and II.
572-3 to 9 per topic (3, 3, 3) Advanced Numerical Analysis.
580-3 Statistical Theory.
581-3 Probability.
582-3 to 6 per topic (3, 3) Advanced Topics in Probability and Statistics.
595-1 to 12 per topic Special Project.
599-1 to 6 Thesis.
600-1 to 30 Dissertation.
601-1 to 12 per semester Continuing Research.

Medical Education Preparation (Courses)

Courses

400-1 to 6 (1 per semester) MEDPREP Seminar. Seminar on social, professional, and scientific issues of interest to students planning a career in medicine or dentistry. Topics: **(a)** orientation; **(b)** medical/dental seminar. Required of MEDPREP participants. May be taken for graduate credit only with written permission of the relevant department and the graduate dean. Prerequisite: restricted to MEDPREP students. Must be taken in a,b sequence. Mandatory Pass/Fail.
401-1 to 20 (1 to 2 per area) MEDPREP Basic Skills. Focus on skills critical for academic success in preprofessional and professional training. Areas: **(a)** learning skills; **(b)** science process skills; **(c)** quantitative skills; **(d)** perceptual motor skills; **(e)** Interpersonal skills; **(f)** reading skills; **(g)** written communication skills; **(h)** vocabulary skills; **(i)** speed reading; **(j)** other. All areas required or proficiency demonstrated within the first year in program. Not for graduate credit. Prerequisite: restricted to MEDPREP students. Areas c, d, e, f, g, and i are Mandatory Pass/Fail.
402-1 to 12 (1 to 2 per topic) MEDPREP Special Problems. Seminars, workshops, lectures, and field experiences related to preparing the student for medical/dental school and careers in medicine or dentistry. Topics: **(a)** MCAT/DAT orientation; **(b)** research seminar; **(c)** clinical experience; **(d)** independent research; **(e)** independent readings; **(f)** other. Topic **(b)** required of all MEDPREP participants. May be taken for graduate credit only with written permission of the relevant department and graduate dean. Prerequisite: restricted to MEDPREP students. Topic **(c)** Mandatory Pass/Fail.

403-1 to 15 (1 to 2; 1 to 2; 1 to 2; 1 to 2; 1 to 2; 1 to 2; 1 to 3) MEDPREP Biology Tutorial. Depending on individual need content will be remedial, supplementary to concurrent biological science courses, or additional permitting acceleration. Sections will be **(a)** genetics; **(b)** anatomy, **(c)** physiology, **(d)** embryology, **(e)** microbiology, **(f)** zoology, **(g)** special. May be taken for graduate credit only with written permission of the relevant department and the graduate dean. Prerequisite: restricted to MEDPREP students or consent of instructor.
404-1 to 14 (1 to 2; 1 to 2; 1 to 2; 1 to 2; 1 to 3; 1 to 3) MEDPREP Chemistry Tutorial. Depending on individual need content will be remedial, supplementary to concurrent preprofessional chemistry courses (Chemistry 222a,b; 344 and 346; and 450) or additional permitting acceleration. Sectons will be **(a,b)** inorganic; **(c,d)** organic; **(e)** biochemistry; **(f)** other. May be taken for graduate credit only with written permission of the relevant department and the graduate dean. Prerequisite: restricted to MEDPREP students.
405-1 to 4 (1 to 2, 1 to 2) MEDPREP Physics Tutorial. Depending on individual need content will be remedial, supplementary to concurrent preprofessional physics courses or additional permitting acceleration. Sections will correspond to two semester physics sequences. May be taken for graduate credit only with written permission of the relevant department and the graduate dean. Prerequisite: restricted to MEDPREP students.

Microbiology (Department, Major, Courses)

Microbiology deals with the study of microorganisms, examining various forms, their classifications, growth, reproduction, heredity, biochemistry, ecology, and their relationship to other living organisms including humans. The following program of study prepares one for laboratory or teaching positions after the bachelor's degree or for graduate study leading to advanced degrees. Students who anticipate the pursuit of higher degrees in microbiology are strongly urged to continue their study of chemistry through physical chemistry, which is an entrance requirement to graduate study in microbiology at many institutions.

Opportunities for specialized training in diagnostic bacteriology, virology, immunology, genetics, biochemistry, and industrial processes are available.

Bachelor of Arts Degree, College of Science

General Studies Requirements	45[1]
Supplementary College of Science Requirements	5
Mathematics 110a,b or 111 (or its equivalent), or 140	(4) + 1
Foreign Languages	(4) + 4
Requirements for Major in Microbiology	65-69
Microbiology 301, 302	7
Microbiology electives: senior level work consisting of 16-20 lecture credits and a minimum of 9 laboratory credits	25-29
Biology 305 and one from Biology 306, 307, 308, or 309	6[2]
Chemistry 222a,b 344, 345, 346, 347	19[2]
Physics 203a,b and 253a,b	8[2]
Electives	1-5
Total	120

[1]The 45 hour requirement may be reduced by taking College of Science or major requirements which are approved substitutes for General Studies courses.
[2]These courses will meet the biological and physical science requirements for the College of Science and may be substituted for a maximum of 12 hours in General Studies.

Minor

A minor in microbiology consists of 16 semester hours, to include 301, 302, and other courses determined by the student in consultation with his microbiology adviser.

Courses

201-4 Elementary Microbiology. Basic concepts of microbiology, classification, metabolic activity and the effect of physical and chemical agents on microbial populations. Host-

parasite interactions. Infectious agents, particularly as they affect the oral cavity; methods of transmission and control. Prerequisite: for students of dental hygiene.

301-4 Principles of Microbiology. Morphology, structure, metabolism, population dynamics, and heredity of the microbial agents with emphasis on pure culture methods of study of bacteria, viruses, and related organisms. Three hours lecture, three hours laboratory. Fall and Spring. Prerequisite: one year of college chemistry and GSA 115, or equivalent. Elective Pass/Fail.

302-3 General Microbiology. Methods of differentiation and classification of bacteria; their biochemical activities; genetics and biological and physiological interrelationships. Two hours lecture and three hours laboratory. Prerequisite: 301. Elective Pass/Fail.

403-2 Medical Bacteriology Lecture. A survey of the mechanisms of infection, epidemiology, and immunity and the specific application of these principles to the symptomatology, diagnosis, treatment, and control of the more common bacterial infections of humans. Two hours lecture. Fall semester. Prerequisite: 301.

404-2 Medical Bacteriology Laboratory. Procedures for the collection and handling of medical specimens for microbial examination and for cultivation and identification of the pathogenic organisms by their morphological, biochemical, and serological characteristics and the fundamental role of the bacteriologist in the diagnosis of infectious diseases. Four hours laboratory. Fall semester. Prerequisite: 403 or concurrent enrollment.

421-3 Foods and Industrial Microbiology Lecture. The relationships of microorganisms to the preparation and preservation of foods; their application to the industrial production of beverages, foods, antibiotics, and other commercial products. Consideration of sanitation, pollution, and recycling of waste products into useful materials. Pure food and drug regulations. Three hours lecture. Prerequisite: 301.

422-2 Foods and Industrial Microbiology Laboratory. Methods for preparation, preservation, sanitary inspection, and analyses of foods and industrial products. Four hours laboratory. Prerequisite: 421 or concurrent enrollment.

425-4 (2, 2) Biochemistry and Physiology of Microorganisms Lecture. Chemical composition, cellular structure, and metabolism of microorganisms. Prerequisite: organic chemistry.

426-4 (2, 2) Biochemistry and Physiology of Microorganisms Laboratory. Prerequisite: 425a,b or concurrent enrollment.

441-3 Virology Lecture. General properties; classification and multiplication of bacterial and animal viruses; lysogeny; immunological and serological reactions; relation of viruses to cancer; consideration of selected viral diseases of animals. Prerequisite: 301 and 302.

442-2 Virology Laboratory. Tissue culture methods, multiplication and assay of animal and bacterial viruses, purification, electron microscopy, interference, immunity. Five hours laboratory. Prerequisite: 441 or concurrent enrollment.

451-3 Immunology Lecture. Natural and acquired immunity. Antigens, antibodies, and antigen-antibody reactions in vitro and vivo. Three hours lecture. Prerequisite: 403.

452-2 Immunology Laboratory. Natural defense mechanism and immune response, preparation of antigens and antibodies, serological reations, conjugated antibodies, electrophoresis, immunological reactions in vivo. Five hours laboratory. Prerequisite: 451 or concurrent enrollment.

453-3 Clinical Microbiology and Immunology Lecture. Lectures dealing with the fundamentals and clinical applications of microbiology and immunology and the properties, pathogenesis, and control of bacterial, viral and mycotic infections in people. Three hours lecture. No limit on enrollment. Prerequisite: 403, 441, and 451.

454-2 Clinical Microbiology and Immunology Laboratory. Methods and procedures in the clinical diagnosis of microbiologic and immunologic diseases in people. Four hours laboratory. Enrollment limited to 12. Prerequisite: 404, 442, and 452, consent of instructor, and 453 or concurrent enrollment.

460-3 Genetics of Bacteria and Viruses Lecture. Genetic mechanisms, mutation, transformation, recombination, transduction, lysogeny, phenotypic mixing, and reactivation phenomena. Three hours lecture. Prerequisite: 301.

461-3 Genetics of Bacteria and Viruses Laboratory. Genetic mechanisms, mutation, transformation, recombination, transduction, lysogeny, phenotypic mixing, and reactivation phenomena. Six hours laboratory. Prerequisite: 460 or concurrent enrollment.

462-2 Fungal Genetics Lecture. Mendelian and molecular genetics of molds and yeasts. Mutant induction, sexual crosses, tetrad analysis, linkage, and mapping. Two hours lecture. Prerequisites: Biology 305.

463-2 Fungal Genetics Laboratory. Four hours laboratory. Prerequisite: 462 or concurrent enrollment, and consent of instructor.

490-1 to 3 Undergraduate Research Participation. Investigation of a problem either individually or as part of a research group under the direction of a member of the faculty. Prerequisite: 3.0 grade point average in microbiology and consent of instructor.

500-1 Seminar.

504-3 Methods of Microbiological Research.

505-1 Special Topics in Microbiology.

511-1 to 7 Research.

520-2 Advanced Microbial Physiology and Control Mechanisms.
528-1 to 3 Readings in Microbiology.
540-3 Advanced Virology.
541-3 Advanced Virology Laboratory.
542-3 Molecular Virology.
543-3 Molecular Virology Laboratory.
551-3 Advanced Immunology.
562-3 Molecular Genetics.
599-1 to 3 Thesis.
600-1 to 12 Dissertation.
601-1 to 12 per semester Continuing Research.

Mining Engineering

(SEE ENGINEERING)

Molecular Science (Major [Doctoral Only], Courses)

Courses

400-7 (2, 5) Physical Basis of Molecular Science. A survey of topics in physics and chemistry relevant to molecular science. **(a)** Topics are drawn from classical mechanics. Corequisite: 400M. Prerequisite: consent of molecular science program chairperson. **(b)** Topics are drawn from classical electromagnetic theory, thermodynamics, statistical thermodynamics, chemical kinetics, and quantum mechanics. Prerequisite: 400M and 400a or consent of molecular science program chairperson.
400M-3 Mathematical Basis of Molecular Science. (Same as Mathematics 453) Selected topics in applied mathematics for students in molecular science. Functions of several independent variables, Jacobians and implicit functions, Lagrange multipliers, Stokes theorem and the divergence theorem, initial and boundary value problems in ordinary and partial differential equations. Approximate solution of initial value problems, Eigenfunction methods for solving boundary value problems. Prerequisite: consent of the molecular science program chairperson.
500-5 The Biological Basis of Molecular Science.
592-1 Colloquy in Molecular Science.
597-2 to 30 Selected Topics in Molecular Science.
598-2 to 16 Special Projects in Molecular Science.
600-1 to 36 (1 to 16 per semester) Dissertation.
601-1 to 12 per semester Continuing Research.

Mortuary Science and Funeral Service (Program, Major, Courses)

This program is the only mortuary science program offered in a public university in Illinois. The program was developed in response to a request from the Illinois Funeral Directors Association. The Association's members recognized the need for a school of higher education to educate funeral service practitioners. The program is fully accredited by the American Board of Funeral Service Education and the Illinois Department of Registration and Education.

This program also is designed to accommodate students transferring from community colleges at the end of the first year. Enrollment of beginning students is limited by size of faculty and physical facilities with new students admitted only in the fall semester. Additional application information is required other than that required for admission to the University.

The program requires two academic years of study and one summer of internship in a funeral home for completion. In addition to technical courses which prepare the student for the profession, the student will take a number of courses which will lead to an understanding of the psychological, sociological, and theological implications of death.

Charge for laboratory costs will be approximately $15.00.

Faculty members are licensed funeral directors and embalmers with experience in the profession. Professional courses are offered in the program's own preparation room-laboratory. Graduates of the program will have satisfied requirements for the trainee license and will be eligible to write the State and/or National Board examinations and to begin serving their traineeship. Career opportunities are excellent and to date, all graduates who desired placement have been employed.

Persons active in the profession serve on the program's advisory committee. Current members are: Joseph McCracken, McCracken Funeral Home, Pana; Hugh Kenny, Chicago Funeral Directors Services Association; Richard Yurs, Yurs Funeral Home, St. Charles; Dwight LeMasters, Mitchell Funeral Home, Marion; William Froelich, Jr., Froelich Memorial Home, Gridley; Daniel A. Justen, Peter M. Justen and Son Funeral Home, McHenry; Joseph W. Schilling, Schilling Funeral Home, Mattoon, William Huffman, Huffman Funeral Home, Carbondale; James R. Wilson, Wilson Funeral Home, Marion; and Robert W. Ninker, executive director, Illinois Funeral Directors Association, Springfield.

This associate degree program can be completed in two academic years, plus one summer session, at Southern Illinois University at Carbondale or in combination with community college of other acceptable extra-institutional educational experience.

Associate in Art Degree, School of Technical Careers

Requirements for Major in Mortuary Science and Funeral Service

GSA 115, 106	6
GSB 202	3
GSD 101	3
GSD 117, 118, or 119	2
GSD 153	3
Accounting 110	3
Secretarial and Office Specialties 208	3
Mortuary Science 101, 102, 108, 225a, b, 230, 250a, b, 256, 257, 375a, b, 380	48
Elective (in Health Education)	2
Total	73

Courses

101-3 Orientation to Funeral Service. Students will trace the history of funeral services from ancient times through practices with emphasis on the development of funeral practices in the United States. Students study the customs of various cultures throughout the world including customs in the United States. They will demonstrate a knowledge of funeral service organizations and will discuss topical areas of current discussion. Lecture three hours.

102-4 Restorative Art. Students will study the anatomical strucutre of the cranial and facial areas of the human skull. They will describe the facial proportions and markings. The student studies the methods and techniques used to restore facial features that might have been destroyed by traumatic and pathological conditions. They will demonstrate a knowledge of color and cosmetology theory. Laboratory assignments will include modeling, applying cosmetics, making hair restorations and casting facial features. Lecture three hours. Laboratory two hours.

108-3 Funeral Service Psychology. Designed to acquaint the student with an overview of psychology in funeral service as applied to death, grief, and mourning. Students will examine interpersonal and public relations as they affect the funeral service practitioner in relationship with the public served. Lecture three hours.

225-8 (4, 4) Embalming Theory and Practice. **(a)** The student will be introduced to techniques of embalming through a study of the body, sanitation, embalming agents, instruments, and methods of embalming. The student studies the theory, practices, and techniques of sanitation; and restoration and preservation of deceased human remains. Laboratory experience will consist of embalming deceased remains and of other related activities. Lecture three hours. Laboratory two hours. **(b)** The student will study the

anatomy of the circulatory system, the autopsied case, the cavity embalming, the contents of the thoracic and abdominal cavities, and the treatment of "special cases" that might be encountered in the embalming process. Laboratory experience is a continuation of 225a. Lecture three hours. Laboratory two hours. Must be taken in a,b, sequence.

230-4 Mortuary Anatomy. The student will study the structure and function of the human body as a whole including: general organization, structural organization, tissues, skeletal system, nervous system, circulatory system, physiology of circulation, glands, respiratory system, digestive system, genito-urinary system, integument, and special senses. Lecture four hours.

250-8 (4, 4) Mortuary Management. **(a)** The student will examine the problems involved in the practice of funeral management. Included are the funeral director's responsibilities from the first call until the completion of the last service rendered the family, funeral home operation and records, ethics and professional regulations. Lecture four hours. **(b)** The student will trace the laws and regulations that govern the practice of funeral service, and study the Illinois License Law, Vital Statistics Act, transportation rules, and Social Security regulations. The funeral director's reponsibilities and relationships to local boards of health and the State Department of Public Health are emphasized. Lecture four hours.

255-5 Embalming Chemistry. The student will study the chemistry of the body, sanitation, toxicology, chemical change in decease human remains, disinfection, and embalming fluids. Laboratory experiments will complement lecture material. Lecture four hours. Laboratory two hours.

256-4 Introductory Microbiology. The student will survey microbiology: morphology, structure, physiology, populations of microbial organisms, microbial destruction, immunology, and pathogenic agents. Lecture four hours.

257-4 Pathology. Students will be introduced to the study of the cause, course, and effects of diseases upon the human body with stress on ways in which tissue changes affect the embalming process. Lecture four hours. Prerequisite: 230 or equivalent.

375-8 (4, 4) Funeral Service Internship. **(a)** Students will spend one summer in a university approved funeral home learning in actual practice situations: functional organization, procedures, and policies of the establishment. They will perform duties and services as assigned by preceptor and coordinator to include surveillance of and participation in the execution of total services rendered to a family. **(b)** They will be given an opportunity to learn embalming techniques by active participation in the preparation room. Service reports and assignments are required to be completed by the student. Prerequisite: all other requirements of the Mortuary Science curriculum must be met. Must take a and b concurrently.

380-2 Funeral Service Seminar. Formal discussions are held to evaluate the experience and progress of the participants in the internship program. Preparations are made for the board examinations. Prerequisite: concurrent enrollment in 375. Mandatory Pass/Fail.

Museum Studies (Minor)

Museum studies is available as an undergraduate interdisciplinary minor. The purpose of the minor is to introduce students to various aspects of museum work, to acquaint them with the opportunities and problems faced by museums and museum personnel, and to create career opportunities for students who might seek employment in a museum. Emphasis will be placed on actual work situations in such diverse museum functions as exhibition, curation, cataloging, acquisition, and administration.

Minor

The museum studies minor consists of 18 hours, with 12 hours of required core courses and 6 hours of electives. Within the core courses listed below students must take six hours offered by one department and six hours from at least two other departments. Students may then elect six hours from either the other core courses or electives listed below.

Core Courses: Anthropology 450a and 450b; Art 447; Geology 445; History 497 and 498.

Electives: Anthropology 404 and 460; Art 207 and 499; Business Administration 440; Geology 440; History 490 and 493.

Music (School, Major, Courses)

The requirements for entrance and for graduation as set forth in this bulletin are in accordance with the published regulations of the National Association of Schools of Music, of which this school of music is a member.

Students who wish to major in music are assumed to have acquired extensive experience in performing with school groups and/or as soloist, basic music reading ability, and a strong sensitivity to music and a desire to communicate it to others. Those without such a background will have to complete additional preparation, which may extend the time to graduation beyond four academic years. Music credits earned at other accredited institutions will apply toward requirements, but the transferring student remains subject to evaluation by the appropriate music faculty for proper placement in the music curriculum.

All students in the Bachelor of Music degree program must maintain satisfactory membership in one of the following ensembles: Music 011, 013, 014, 017, 020, 021, or 022 every term in residence. The choice of major ensembles must be compatible with the student's applied field. Instrumental music education students must enroll in Music 011 for a minimum of one semester. All junior and senior students with a major or minor in music must maintain satisfactory membership every session in one of the above ensembles, or in one of the following: Music 341, 346, or 414. Students are exempt from this requirement during the session of student teaching. Students also may elect additional large or small ensembles, not to exceed three in any one session.

Each student with a major or minor in music must designate a principal applied field and complete the credits specified within the selected specialization. Changes in the principal applied field are permissible so long as the student accumulates the required credit total and meets the required level of proficiency.

Credits in one's principal applied field are based on private lessons with a member of the faculty, weekly participation in Studio Hour (Mondays, at 10:00 a.m.), and recorded attendance each semester at seven campus recitals or concerts, approved for the purpose by the School of Music faculty, in which the student is not a participant. Students who fail to fulfill either the Studio Honor or attendance at campus recitals or concerts requirements will receive a grade of Incomplete, which can be removed only by making up the deficiency during the ensuing semester. A student who wishes to attempt the performance specialization in applied music must have prior approval of the appropriate faculty jury, and thereafter enrolls for and receives two lessons per week for 4 credits per semester.

A student may elect private instruction in a second field or fields, but this is for one credit per semester since the studio hour and recital attendance requirements pertain only to the principal applied field.

Students not majoring or minoring in music may elect private applied music instruction if they can exhibit sufficient ability, they are participating simultaneously in one of the University performing groups, and faculty loads will allow. Registration is at one credit per semester, with no studio hour or recital attendance requirement. Those wishing such instruction should arrange for an interview and audition with the appropriate instructor.

Students specializing in music education should apply for admission to the Teacher Education Program as soon as they have accumulated 30 semester hours of credit. After being admitted, they must complete a series of specific requirements in order to qualify for student teaching and for the Illinois teaching certificate. Additional information is given under Education, Professional Education Experiences, and Curriculum, Instruction, and Media in this chapter.

Financial Information

Special grants and awards are available to students enrolled in the School of Music who are qualified and in need of financial assistance. Opportunities for employment in the student work program are excellent. In addition, there are scholarships (tuition awards) and loan programs available through the Office of Student Work and Financial Assistance.

Beyond the general university tuition and fees, there are no additional charges for music lessons or use of practice rooms, nor for rental of instruments used in classes or performing groups; however, students are responsible for purchase of their own textbooks, solo literature, and incidental supplies for music lessons and classes. Such costs normally range from $20 to $50 per semester.

Bachelor of Music Degree, College of Communications and Fine Arts

General Studies Requirements	45
Including GSA 361 and Music 102 and 105a as GSC substitutes	
Requirements for Major in Music	75
Theory: Music 104a,b; 105a,b; 204; 205; 207; 321; 322	(3)[1] + 16
History-Literature: Music 102; 357a,b	(2)[1] + 6
Major performing ensembles (8 semester)	8[2]
Partial Recital: Music 398	1
Beginning Piano: Music 030 (or waiver by examination)	4[3]
Specialization (see below)	40
Total	120

MUSIC MAJOR — PERFORMANCE SPECIALIZATION, INSTRUMENTAL (STANDARD ORCHESTRAL AND BAND INSTRUMENTS, AND GUITAR)

Music 140-440, principal field, 8 semesters	28
Music 498	2
Music 407, 421, 461,or any of 470 series	6
Approved music electives	4
	40

MUSIC MAJOR — PERFORMANCE SPECIALIZATION, KEYBOARD (PIANO, ORGAN, AND HARPSICHORD)

Music 030 not required[3]	
Music 140-440, principal field, 8 semesters	28
Music 498	2
Music 461	3
Music 407, 421, or any of 470 series	4
Music 341	3
	40

MUSIC MAJOR — PERFORMANCE SPECIALIZATION, VOICE

Music 140-440, principal field, 8 semesters	28
Music 498	2
Music 407, 421, 461, or any of 470 series	4
Approved foreign language, 2 semesters	(4)[1] + 4
Music 363	2
	40

MUSIC MAJOR — MUSIC HISTORY-LITERATURE SPECIALIZATION

Music 140-340, principal field, 6 semesters	12
Music 407, 421	4
Music 472 or 499	2
Music 475, 476, or 477	6
Approved foreign language, 3 semesters	(4)[1] + 8

Approved electives (suggest Music 410, 414, 482, and fourth semester of foreign language)	8
	40

MUSIC MAJOR — MUSIC THEORY-COMPOSITION SPECIALIZATION

Music 140-340, principal field, 6 semesters	12
Music 407, 421	4
Music 280, 380	8
Music 480, 481, or 499	4
Music 470 series	5
Approved music electives, 300 level or above	7
	40

MUSIC MAJOR — MUSIC BUSINESS SPECIALIZATION

General Studies Requirements	45
Including GSA 361 and Music 102 and 105a as GSC substitutes	
Requirements for Major in Music with Music Business Specialization	75
Accounting 221, 222	6
Administrative Sciences 304	3
Economics 215	3
Finance 271	3
Marketing 304, 363, 401, 438	12
Music 104a, b, 105a, b	8
Music 305	2
Music 324	1
Music 374, 375	6
Music 420	1-2
Music 040-240, 4 semesters	4-8
Music 030, 2 semesters (or waiver by examination)	2
Music 031 (or waiver by examination)	1
Six semesters chosen from 011, 013, 014, 017, 020, 021, 022	6
Music 032-1, 033-1, 034-1, 035-1, 036-1	5
Music electives	7-12
Electives selected from GSA 101, GSC 371, Music 036, Music 373, Physics 325, 355, or intern-cooperative training.	
Total	120

Bachelor of Music Degree, College of Communications and Fine Arts or Bachelor of Music Education Degree, College of Education

MUSIC MAJOR — MUSIC EDUCATION SPECIALIZATION[4]

General Studies Requirements	45
Including GSA 361; GSB 202, GSB 212 or 300, and Music 102 and 105a as GSC substitutes	
Requirements for Major in Music	57
Theory: Music 104a,b; 105a,b; 204, 205; 207; 321; 322	(3)[1] + 16
History-Literature: Music 102, 357a,b	(2)[1] + 6
Major performing ensembles, 7 semesters[2]	7
Music 140-340, principal field, 6 semesters	12
Music 398	1
Music 031 (or waiver by examination)	1
Music 304	2
Music education specialization	12
Music 030[3]	2
Music 032, 033, 034, 035	4
Music 305, 318, 324	6
Or	

Music 030	4
Music 317, 325	4
Music 306 or 032-036 series	2
Music 363	2
Professional Education Requirements	24
See Teacher Education Program, page 77.	
Music 304 and 306 substitute for Education 312.	
Total	126

[1]GSC substitutes.
[2]Exception for performing ensembles in music education specialization.
[3]Exceptions for Music 030 (and consequent credit hour adjustment) in keyboard performance and instrumental music education specializations.
[4]These programs meet the requirements for the Illinois Special Teaching Certificate in music.

Bachelor of Arts Degree, College of Communications and Fine Arts

The Bachelor of Arts degree is individually tailored to meet the needs and educational goals of each student pursuing it. Of the 40 hours in music necessary to complete this degree, required course are Music 102, 104a, b, 105a, b; four semesters of 140, eight hours; performing ensembles, four semesters, four hours. The remainder of the music courses necessary to complete the degree program are selected by the student in consultation with the School of Music adviser and faculty sponsor. This planning is done during the first semester. Changes may be made if agreed upon by the student, the School of Music adviser and the student's faculty sponsor. Students must comply with the studio hour and recital attendance requirements listed under general requirements in music.

Minor

The minor in music includes Music 102, 030a,b 104a,b, 105a,b, 357a,b; two semesters of performing ensembles, two hours; and two semesters of 040 or 140, four hours for a total of 24 credits. Students must comply with the studio hour and recital requirements listed above.

Courses

011-1 to 8 (1 or 2, 1 or 2, 1 or 2) Marching Salukis. Fall semester only. Open to all students with experience in bands. Performs at all home football games, and one or two away. Counts as a "major ensemble," one of which must be taken each semester by resident music majors.
012-1 to 4 (1, 1, 1, 1) Laboratory Band. Spring semester only. Open to all students with experience in bands. Opportunity to extend experience on one's secondary instrument, if desired. Performs at all home basketball games and functions as laboratory group for conducting students.
013-1 to 16 (1 or 2 per semester) Symphonic Band. Open to all students with experience in bands. Performs standard literature. Two or three concerts per year. Counts as "major ensemble," one of which must be taken each semester by resident music majors.
014-1 to 16 (1 or 2 per semester) Concert Wind Ensemble. A select group which performs advanced contemporary literature. Three concerts and tour per year. Counts as a "major ensemble," one of which must be taken each semeser by resident music majors. Prerequisite: audition prior to first registration.
015-1 to 16 (1 or 2 per semester) Jazz Ensemble. For students experienced with popular literature. Concerts and tours when feasible. Prerequisite: audition prior to first registration.
016-1 to 8 (1, 1, 1, 1, 1, 1, 1, 1) Brass and Percussion Ensemble. A select group, performing literature scored for this instrumentation. Two or three concerts per year and tour as feasible. Prerequisite: audition prior to first registration.
017-1 to 16 (1 or 2 per semester) Symphony. Open to all experienced string, woodwind, brass, and percussion players. Plays standard and advanced orchestral literature, performs three or four concerts per year. Counts as a "major ensemble," one of which must be taken each semester by resident music majors. Prerequisite: audition prior to first registration.
018-1 to 4 (1, 1, 1, 1) String Orchestra. Fall semester only. Open to all string players concurrently enrolled in Symphony. Rehearses symphony parts and string orchestra literature.

019-1 to 4 (1, 1, 1, 1) Laboratory Orchestra. Spring semester only. Open to all experienced string, woodwind, brass, and percussion players with consent of instructor. Performs opera and orchestral-choral works.
020-1 to 16 (1 to 2 per semester) University Chorus. Open to all students who desire to sing. Study and performance of major choral-orchestral literature. Two concerts per year. Counts as a "major ensemble," one of which must be taken each semester by resident music majors. No audition required.
021-1 to 16 (1 or 2 per semester) S.I.U. Chorale. Open to all experienced singers. Emphasis on advanced contemporary literature. Three or four concerts per year and tours as feasible. Counts as a "major ensemble," one of which must be taken each semester by resident music majors.
022-1 to 16 (1 or 2 per semester) University Choir. A select group which performs advanced choral literature of all eras. Three or four concerts per year and tours as feasible. Counts as a "major ensemble," one of which must be taken each semester by resident music majors. Prerequisite: audition prior to first registration, and each succeeding fall.
023-1 to 8 (1, 1, 1, 1, 1, 1, 1, 1) Southern Singers. Open to all experienced singers. Emphasis on light, popular literature. Two or three appearances per year.
024-1 to 8 (1, 1, 1, 1, 1, 1, 1, 1) Male Glee Club. Open to all male students who desire to sing. Serious and lighter glee club material. Frequent appearances on and off campus.
025-1 to 8 (1, 1, 1, 1, 1, 1, 1, 1) Women's Choral Ensemble. Open to all women who desire to sing. Two or three appearances per year.
030-4 (1, 1, 1, 1) Piano Class. **(a)** Level 1, **(b)** level 2, **(c)** level 3, **(d)** level 4. Designed to develop functional command of basic keyboard skills needed in the further study of music and the teaching of music. Take in sequence unless assigned advanced placement by instructor. Prerequisite: major or minor in music, elementary education, early childhood education, or consent of instructor.
031-2 (1, 1) Voice Class. **(a)** Level 1, **(b)** level 2. Designed to develop functional command of basic vocal skills needed in teaching music. Prerequisite: consent of instructor.
032-3 (1, 1, 1) String Techniques Class. **(a)** Upper strings; **(b)** lower strings; **(c)** mixed strings. Designed to develop essential techniques and principles which can be used in teaching young string pupils. Students begin with one instrument and shift to another at mid-term. Take a,b, or c in any order. Prerequisite: music major or minor.
033-4 (1, 1, 1, 1) Woodwind Techniques Class. **(a)** Flute and single reeds, **(b)** double reeds, **(c)** mixed woodwinds, **(d)** recorder. Designed to develop essential techniques and principles which can be used in teaching young woodwind pupils. Students begin on one instrument and shift to another at mid-term, except for **(d)**. Take a, b, c, or d in any order. Prerequisite: music major or minor or consent of instructor.
034-3 (1, 1, 1) Brass Techniques Class. **(a)** Upper brass; **(b)** lower brass; **(c)** mixed brass. Designed to develop essential techniques and principles which can be employed in teaching young brass pupils. Students begin with one instrument and shift to another at midterm. Take a, b, or c in any order. Prerequisite: music major or minor.
035-1 Percussion Techniques Class. Designed to develop basic techniques and principles which can be employed in teaching young percussion pupils. Prerequisite: music major or minor.
036-2 (1, 1) Guitar Class. **(a)** Level 1, **(b)** level 2. Designed to develop basic techniques and principles which can be employed in teaching music. Prerequisite: major or minor in music, elementary education, or early childhood education, or consent of instructor.
040, 140, 240, 340, 440, 540-1, 2, or 4 Applied Music. Offered at six levels in the areas listed below. May be repeated for credit as long as passing grade is maintained. Student must be concurrently enrolled in one of the performing groups. Prerequisite for 040: satisfactory completion of beginning class instruction offered in that area, or the equivalent. Prerequisite: for 140: three or more years of prior study or performing experience, or two semesters of *C* or better at 040 level. Prerequisite: for 240, 340, 440, 540: two semesters of *C* or better at previous level, or consent of applied jury. Music majors and minors enroll for two credits on their principal instrument, taking one half-hour private lesson and studio class, Mondays at 10:00. Those with prior approval by their applied jury for the specialization in performance enroll for four credits, taking two half-hour private lessons and the student class each week. Non-music majors or minors, and those music majors taking a second instrument, enroll for one credit, taking one private or class lesson per week. Six hours of individual practice per week required for each lesson. For shorter sessions, credit is reduced or lesson time is increased proportionately.

a. Flute
b. Oboe
c. Clarinet
d. Bassoon
e. Saxophone
f. Horn
g. Trumpet
h. Trombone
i. Baritone
j. Tuba
k. Percussion
l. Violin
m. Viola
n. Cello
o. String Bass
p. Voice
q. Piano
r. Organ
s. Harpsichord
t. Guitar
u. Recorder

101-3 Music Fundamentals. Rudiments of music for those with little or no musical background. One lecture and one piano laboratory session per week. Provides basic music vocabulary and keyboard competency for 300, 301, 302, and 303.
102-2 Survey of Music Literature. Characteristic forms and styles. Analysis and listening. Examples from the leading composers of each era. Prerequisite: music major or minor.
104-2 (1, 1) Aural Skills. A laboratory course designed to complement 105a and b. Practice in recognition and singing of basic pitch and rhythm materials, and their realization in standard musical notation. For those planning a major or minor in music, take a and b in sequence, or, with prior consent of instructor, concurrently.
105-6 (3, 3) Basic Harmony. Study of traditional diatonic tonal materials and standard notational practice. Includes keyboard skills. For those with performing experience and planning a major or minor in music. Take a and b in sequence. Prerequisite: concurrent registration in 104 and 030, or equivalent aural and keyboard skill.
107-1 Applied Harmony for Fretted Instruments. Application of basic harmonic functions to the fretted instruments including guitar. Prerequisite: concurrent enrollment in guitar (140-540t) or consent of instructor.
140-1, 2, or 4 Applied Music. (See 040.)
204-1 Advanced Aural Skills. Continuation of 104. Designed to complement 205. Prerequisite: 104b.
205-3 Advanced Harmony. Study of chromatic tonal materials, including keyboard skills. Prerequisite: 104b and 105b, and concurrent registration in 204.
207-2 Contrapuntal Techniques. Basic contrapuntal principles and skills, especially as applied to 18th and 19th century styles. Extensive writing practice, and analysis of stylistic models. Introduction to major contrapuntal forms. Prerequisite: 205 and 204, or take 204 concurrently.
240-1, 2, or 4 Applied Music. (See 040.)
250-3 The History and Literature of the Guitar and Related Fretted Instruments. A survey of the history and literature of the guitar and related fretted instruments from the Renaissance to the present with emphasis on interpretation.
257-12 Intern-Work Experience. Practical experience in music retailing, wholesaling, and publishing under the supervision of professional firms. Open only to candidates for the Bachelor of Music degree with emphasis in music business.
280-2 to 4 (2, 2) Beginning Composition. Application of contemporary compositional techniques. Prerequisite: 105b or consent of instructor.
300-2 Teaching Music in the Primary Grades. For non-music majors only, who may be expected to teach music in grades K-3. Methods and materials for instruction. Prerequisite: 101 or equivalent.
301-2 Teaching Music in the Intermediate Grades. For non-music majors only, who may be expected to teach music in grades 4-6. Methods and materials for instruction. Prerequisite: 101 or equivalent.
302-2 Music in Special Education. For non-music majors only, with an interest in pursuing a career in special education. Prerequisite: 101 or equivalent.
303-3 Music for Pre-Schoolers. Methods and materials for teaching music to pre-school children. Recommended for majors in the Department of Child and Family and in early childhood education. Prerequisite: 101 or equivalent.
304-2 The General Music Program. A survey of problems and methods in teaching music in the schools, with scheduled observations of school music programs in operation. Special attention to the teaching of comprehensive musicianship through the general music program in the junior high school. Prerequisite: admission to teacher education program.
305-2 Instrumental Music in the Schools. Administration of the school instrumental music program. Emphasis upon teaching instruments and the management and instruction of instrumental organizations. Prerequisite: 304.
306-2 Music Specialist in the Elementary Schools. Principles and methods employed in supervising and teaching the elementary school music program. Designed for music majors and minors. Prerequisite: 304.
317-3 Choral Conducting and Methods. Score reading, baton techniques, and rehearsal techniques, organization and management problems of school choral groups. Prerequisite: music major or minor and junior standing.
318-3 Instrumental Conducting. Score reading, baton techniques, and rehearsal management. Supervised application in ensemble. Prerequisite: music major or minor and junior standing.
321-2 Form and Analysis. Comprehensive study of harmonic and formal structures and typical stylistic traits of 18th and 19th century music. Prerequisite: 204 and 207.
322-3 Principles of 20th Century Music. Comprehensive study of harmonic techniques and other stylistic traits of major 20th century idioms. Prerequisite: 321.
324-1 Instrumental Arranging. Practice in scoring of transcriptions, arrangements, and original compositions for standard instrumental groups. Prerequisite: 205.
325-1 Choral Arranging. Practice in scoring arrangements and/or original compositions for choral groups. Prerequisite: 205.

331-1 Jazz Improvisation. Ear training, phrasing in extemporaneous playing, use of chord symbols and chord progressions, special effects peculiar to jazz playing and styles of playing. Prerequisite: 205.
340-1, 2 or 4 Applied Music. (See 040.)
341-1 to 8 (1 or 2 per semester) Accompanying Laboratory. Experience, under supervision, in accompanying soloists and groups. Counts as a "major ensemble" for juniors and seniors.
346-1 to 16 (1 or 2 per semester) Opera Workshop. Open to all experienced singers and stage technicians. Performs one major work and two or more excerpt programs per year. Normal registration is for two credits; four credits with permission for those with major roles; eight credits for full-time summer workshop. Counts as a "major ensemble" for juniors and seniors.
347-1 to 12 Music Theater Workshop. For experienced singers, actors, dancers, and instrumentalists. Normally offered during summer as a full-time course, for eight credits, or one credit per show for the orchestral players. Three or four musicals are rehearsed and presented. Prerequisite: audition.
357-6 (3, 3) Music History. Study of musical examples and techniques evolving from the ancient period to the present. May take a or b in either order. Prerequisite: 102 and junior standing.
363-2 (1, 1) Pronunciation and Diction for Singers. **(a)** English and French, **(b)** German and Italian. Establishment of proper pronunciation as applied to vocal literature. Prerequisite: one or more semesters of private or class voice instruction. Elective Pass/Fail.
364-2 The Alexander Technique of Body Control. A controlled discipline to counteract tension habits that are harmful to correct use of the body, particularly as they relate to music, speech, dance, and theater.
365-1 to 48 Chamber Music. Groups of two to sixteen performers as organized and sponsored by individual faculty members. Includes duo-piano teams, and piano in combination with other performers. Regular weekly rehearsals of appropriate music and public performance as feasible.
a. 1 to 8 (1, 1, 1, 1, 1, 1, 1, 1) Chamber Music-Vocal.
b. 1 to 8 (1, 1, 1, 1, 1, 1, 1, 1) Chamber Music-String.
c. 1 to 8 (1, 1, 1, 1, 1, 1, 1, 1) Chamber Music-Woodwind.
d. 1 to 8 (1, 1, 1, 1, 1, 1, 1, 1) Chamber Music-Brass.
e. 1 to 8 (1, 1, 1, 1, 1, 1, 1, 1) Chamber Music-Percussion.
f. 1 to 8 (1, 1, 1, 1, 1, 1, 1, 1) Chamber Music-Keyboard.
370-2 American Folk Music. American folk music from its foreign heritage to its current manifestations.
372-3 The Music of Black Americans. (Same as Black American Studies 362.) The study of the music created and produced by black people in the United States. Content ranges from work songs and spirituals through contemporary classical music. Although jazz is not ignored, primary focus is on other styles and genres. Some emphasis upon the environmental forces which shaped the music. Historically oriented.
373-3 Rock and Pop Music. Study of "rock" and other popular American music. Evolution of both black and white folk music is shown. Rock is studied as the merging of aspects of these two folk mainstreams. Major figures in rock are studied. Lectures, "live" and recorded demonstrations, films, and individual projects will be used.
374-3 Music Merchandising I. A study and investigation of domestic and international copyright protection, the publishing and distribution of music, and investigation of recorded music. Prerequisite: sophomore standing and permission of instructor.
375-3 Music Merchandising II. Continuation of 374, emphasizing continued study of the recored industry, performed music and performance rights, musical instruments manufacture, and an investigation of wholesale and retail procedures. Prerequisite: 374.
380-2 to 4 (2, 2) Intermediate Composition. Continuation of 280. Original composition in the smaller forms for piano, voice, string quartet, and other small combinations. Prerequisite: 280-4.
398-1 to 2 (1, 1) Partial Recital. Preparation and presentation of a partial recital in any applied field. Prerequisite: prior or concurrent registration in 340 and approval of applied jury.
399-5 (1, 1, 1, 1, 1) Graduate Preparatory Seminar. **(a)** Music analysis, **(b)** Aural techniques, **(c)** Pre-Baroque, **(d)** Baroque and Classical, **(e)** Romantic and Modern. Designed to supply understanding and skills where deficiencies have been shown by the graduate proficiency examinations in music. Part or all may be taken in any sequence. Prerequisite: prior assignment by graduate committee in music.
400-1 to 2 (1, 1) Peformance Techniques. Individual instruction in any secondary applied field. Designed to provide added depth of preparation for teaching instrumental and vocal music. Prerequisite: completion of 340 level or the equivalent in some field of applied music.
407-2 Modal Counterpoint. Study of Renaissance contrapuntal techniques. Extensive writing practice, and analysis of stylistic models. Prerequisite: 207.

410-6 (3, 3) Ethnomusicology. (Same as Anthropology 410h, i) **(h)** Oceania, Asia, and Africa, **(i)** Middle East, Europe, and the New World.
414-1 to 8 (1 to 2 per semester) Collegium Musicum. For experienced singers and instrumentalists. Emphasis upon practical study of historical music literature of the Medieval, Renaissance, and Baroque eras. Counts as a "major ensemble" for juniors an seniors.
420-1 to 2 (1, 1) Instrument Repair. A shop-laboratory course dealing with the selection, tuning, adjustment, maintenance, and repair of musical instruments.
421-2 Advanced Analysis. Structure, form, and design in music as the coherent organization of all of its factors. Analysis of works chosen from a variety of styles and genres. Prerequisite: 321.
430-1 Jazz Arranging. Methods of scoring for popular groups. Practice in scoring arrangements and/or original compositions for jazz ensembles. Prerequsite: 324 or prior consent of instructor.
440-1, 2, or 4 Applied Music. (See Music 040.)
447-4 (2, 2) Electronic Music. **(a)** Introduction to classical studio equipment and techniques; use of voltage controlled equipment. Individual laboratory experience available. **(b)** Emphasis upon creative projects, more sophisticated sound experimentation, and analysis. Enrollment limited. Must be taken in a,b sequence. Prerequisite: 280 or GSA 361 or consent of instructor.
453-2 to 4 (2 per semester) Advanced Topics in Choral Music. Practicum in the selection, rehearsal, and performance of appropriate literature. Study of techniques for achieving proficient performance and musical growth. Designed for experienced teachers and advanced students.
454-2 to 4 (2 per semester) Advanced Topics in Instrumental Music. Practicum in the selection, rehearsal, and performance of appropriate literature. Study of techniques for achieving proficient performance and musical growth. Designed for experienced teachers and advanced students.
455-2 to 4 (2 per semester) Advanced Topics in Elementary School Music. Practicum in the selection and use of materials for the elementary school program. Study of techniques for achieving balanced musical growth. Designed for experienced teachers and advanced students.
456-4 (2, 2) Music for Exceptional Children. (Same as Special Education 456.) **(a)** Theories and techniques for therapeutic and recreational use of music with physically and mentally handicapped children. Includes keyboard, autoharp, guitar, and tuned and untuned classroom instruments. **(b)** Applications for the gifted, emotionally disturbed, and culturally disadvantaged child. Take in sequence. Prerequisite: 302 or prior consent of instructor.
460-3 Music Aesthetics and Appreciation. The significance of music for people. Critical theories in the writings of philosophers of music and art from Plato through Dewey and Cage are related to principles and methods for communicating an understanding of music in schools and in society.
461-3 Applied Music Pedagogy. Specialized problems and techniques employed in studio teaching of any particular field of musical performance. Study of music literature appropriate for the various levels of performance. Opportunity, as feasible, for supervised instruction of pupils. Meets with appropriate instructor, individually or in groups.
468-2 to 4 (2, 2) Music Productions. Practicum in the techniques for staging operas and musicals.
472-2 Chamber Music Literature. A study of literature for the principal types of chamber music groups.
475-3 Baroque Music. The development of vocal and instrumental music in the period 1600-1750, from Monteverdi to Bach and Handel. Oratorio and Cantata, the influence of opera, sonata, suite, and concerto. Prerequisite: For undergraduate enrollment: 357a or b. For non-music majors: prior consent of instructor.
476-3 Classical Music. Development of the sonata, symphony, concerto, and chamber music in the 18th and early 19th centuries, with emphasis on the music of Haydn, Mozart, and Beethoven. Prerequisite: For undergraduate enrollment: 357a or b. For non-music majors: prior consent of instructor.
477-3 Romantic Music. Development of the symphony and sonata forms, chamber music, and vocal music in the 19th and early 20th centuries. Rise of nationalism and impressionism. Prerequisite: For undergraduate enrollment: 357a or b. For non-music majors: prior consent of instructor.
479-2 to 4 (2 per topic) Solo Performance Literature. Topics presented will depend upon the needs of students and upon instructors scheduled. **(a)** piano literature, including an introductory study of harpsichord music; **(b)** organ literature, in relation to the history of the instrument; **(c)** song literature; **(d)** guitar and lute literature; **(e)** solo string literature; **(f)** solo wind literature.
480-2 to 4 (2, 2) Advanced Composition. Original composition involving the larger media. Individual instruction. Prerequisite: 380-4.

481-1 to 4 Readings in Music Theory. Assigned readings and reporting of materials pertaining to a particular phase of music theory in historical perspective. Approximately three hour's preparation per week per credit (adjusted for shorter sessions). Prerequisite: 321 and 322 or prior consent of instructor.
482-1 to 4 Readings in Music History and Literature. Assigned readings and reporting of materials pertaining to a particular phase of history or literature. Approximately three hours preparation per week per credit. Prerequisite: 357a and b, or prior consent of instructor.
483-1 to 4 Readings in Music Education. Assigned readings and reporting of materials pertaining to a particular phase of music education. Approximately three hours preparation per week per credit (adjusted for shorter sessions.)
498-2 to 4 (2, 2) Recital. Preparation and presentation of a full solo recital in any applied field. Prerequisite: prior or concurrent registration in 440 and approval of applied jury.
499-1 to 8 Independent Study. Original investigation of selected problems in music and music education with faculty guidance. Project planned to occupy approximately three hours preparation per week per credit (adjusted for shorter sessions). Prerequisite: prior consent of selected instructor.
500-1 to 6 Independent Investigation.
501-3 Music Bibliography and Research.
502-4 (2, 2) Analytic Techniques.
503-3 Scientific Evaluation and Research in Music.
509-2 History and Philosophy of Music Education.
535-2 Contemporary Idioms.
540-1, 2, or 4 Applied Music.
545-3 Pedagogy of Music Theory.
550-2 School Music Administration and Supervision.
556-2 to 4 (2, 2) Advanced Conducting.
566-1 to 12 (1 or 2 per semester) Ensemble.
567-1 to 8 Music Theater Workshop.
568-1 to 16 (1 to 8 per semester) Opera Workshop.
570-3 History of Opera.
573-3 Medieval Music.
574-3 Renaissance Music.
578-3 Twentieth Century Music.
580-2 to 4 (2, 2) Graduate Composition.
595-2 Music Document.
598-4 Graduate Recital.
599-2 to 6 Thesis.
601-1 to 12 per semester Continuing Research.

Nursing

(SEE ASSOCIATE DEGREE NURSING)

Nursing (Preprofessional Program)

The School of Nursing of Southern Illinois University at Edwardsville offers an educational program leading to a Bachelor of Science degree with a major in nursing. The curriculum is designed to prepare qualified individuals to function competently as beginning professional nurse practitioners; to participate in providing a broad scope of health care in a variety of settings; to obtain a foundation for continued growth and graduate education. The curriculum assists students in developing the behaviors and abilities necessary to function therapeutically with people while achieving greater self-direction, self-realization, and professional identity in an era characterized by change.

The first three semesters of the program may be completed at Southern Illinois University at Carbondale. During this time, the student must successfully complete all courses prerequisite to the nursing major. The student must then transfer to Southern Illinois University at Edwardsville. Information concerning these courses is available at the Pre-Major Academic Advisement Center.

All students are strongly urged to seek academic advisement for each semester

in attendance. The grade of *C* or above is required in all prerequisite courses, with an overall grade point average of 2.5 required for admission to the School of Nursing.

Occupational Education

(SEE VOCATIONAL EDUCATION STUDIES.)

Philosophy (Department, Major, Courses)

The student electing to major in philosophy should consult the department's director of undergraduate studies, who will then assign an adviser. Prospective students are advised to take at least one philosophy course at the 100 or 200 level.

Bachelor of Arts Degree, College of Liberal Arts

General Studies Requirements	45
Supplementary College Requirements (See page 84.)	(4) + 8-14
Requirements for Major in Philosophy	28
Philosophy 304 and 305	6
At least two of the following: Philosophy 300, 306, 320, 340, 342	6
At least two 400-level philosophy courses	6-8
Philosophy electives to complete 28 hours, 6 of which may be selected from the 200 level	8-10
Minor	15
Electives	18-24
Total	120

Minor

A minor in philosophy requires 15 hours, 6 of which may be selected from philosophy courses offered at the 200 level and 6 of which should be selected from the courses listed above for the major. Philosophy 304 and 305 are recommended.[1]

Honors

Honors in philosophy will be granted to eligible majors who successfully complete two semesers of Philosophy 397, maintain a 3.25 average in philosophy and a 3.00 overall grade point average, and have their written work in one Undergraduate Philosophy Seminar approved by a faculty committee.

Courses

200-3 Types of Philosophy: An Introduction. Survey of the traditional branches and problems of philosophy, such as religion, metaphysics, epistemology, ethics, political theory, aesthetics, and history. Elective Pass/Fail.

206-3 Philosophies of the Person. A survey and examination of selected theories of human nature, beginning with ancient and medieval philosophies and continuing into modern times with some consideration of scientific and ideological accounts. Elective Pass/Fail.

290-2 to 5 Special Problems. Individual or small group study of topics mutually agreed to by an instructor and students. Special topics announced from time to time. Students are invited to suggest topics.

300-3 Elementary Metaphysics. Presentation of answers to the most general problems of existence. An attempt to unify all scientific approaches to reality through the laying down of common principles. Elective Pass/Fail.

301-3 Philosophy of Religion. (Same as Religious Studies 301.) An analysis of problems in the psychology, metaphysics, and social effects of religion. Among topics discussed are the nature of mystical experience, the existence of God, and problems of suffering, prayer, and immortality. Elective Pass/Fail.

[1]Students completing a minor in philosophy for purposes of obtaining teacher certification in the State of Illinois must complete a minimum of 18 semester hours in the minor area.

304-3 Ancient Philosophy. Survey of western philosophy from the pre-Socratics, Plato, and Aristotle through the Middle Ages. Elective Pass/Fail.
305-3 Modern Philosophy. A survey of western philosophy from Bacon and Descartes through Kant. Elective Pass/Fail.
306-3 Nineteenth Century Philosophy. Survey of 19th century European philosophy. Topics to be selected from the following: Hegel's philosophy; the subsequent reactions to Hegelianism in the forms of positivism, Marxism, and existentialism; British utilitarianism and idealism; neo-Kentian philosophies; and evolutionist philosophies. Elective Pass/Fail.
313-3 Classical Chinese Philosophy. Historical and comparative study of Confucianism, Taosim, Maoism, and Legalism. Elective Pass/Fail.
314-3 Modern Chinese Philosophy. Historical and comparative study of Mahayana Buddhism, Neo-Confucianism, and Maoism. Elective Pass/Fail.
320-3 Deductive Logic. Main forms of deductive inference. Emphasis on the use of the symbolism of modern logic to evaluate inferences. Elective Pass/Fail.
340-3 Ethical Theories. Nature of ethics and morality, ethical skepticism, emotivism, ethical relativism, and representative universalistic ethics. Bentham, Mill, Aristotle, Kant, Blanshard, and Brightman. Elective Pass/Fail.
342-3 Legal and Social Philosophy. Discussion of contemporary institutions designed to achieve socially desirable goals (e.g., guaranteeing equality of opportunity, protecting individual liberties, assuring a fair distribution of wealth, minimizing violent behavior) and the philosophical theories that serve as the foundation for the continued existence or reform or abolition of these institutions (e.g., the theories of Hobbes, Marx, Mill, and Marcuse). Elective Pass/Fail.
344-3 The Biomedical Revolution and Ethics. Changes in biology and medicine have brought into sharp focus such problems as allocation of scarce medical resources, use of human subjects in experiments, abortion, euthanasia, genetic screening, truth-telling in medical practice, moral rights of patients and other matters. This course brings ethical principles to bear on these issues.
355-3 Philosophy of Education. (See Educational Administration and Foundations 354.) Elective Pass/Fail.
371-3 Introduction to Contemporary Phenomenology. Introductory survey of individual thinkers and questions in the contemporary phenomenological tradition: Husserl, Sartre, Merleau-Ponty, Levinas, and Ricoeur. Elective Pass/Fail.
375-3 Philsophical Foundations of Ecology. Study of the conceptual foundations of the ecological or environmental outlook, the differences that may exist between those foundations and other philosophical frameworks, and the possible changes in general patterns of thought that may result from the increasing importance and widening application of ecological sciences. Elective Pass/Fail.
378-3 Introduction to Marxist Theory. An introduction to Marxist historical method and its effects on social theory, politics, aesthetics, literary criticism, psychology, philosophy, and economics. Classical texts from Lukacs to Althusser and examinations of critical questions in the social sciences provide the topics of the course.
389-3 Existential Philosophy. Surveys the two main sources of existentialism, the life philosophies of Kierkegaard and Nietzsche and the phenomenology of Husserl, and introduces the major philosophical themes of representative thinkers: J.P. Sartre, M. Heidegger, G. Marcel, and others. Elective Pass/Fail.
397-8 (4,4) Undergraduate Philosophy Seminar. Small group discussion of topics in philosophy.
400-3 Philosophy of Mind. An investigation of the philosophic issues raised by several competing theories of mind, focusing on the fundamental debate between reductionistic accounts (e.g., central state materialism, identity theories of the physical and mental) and views which reject such proposed reductions. Traditional and contemporary theories will be examined. Designed for students in the life and social sciences with little or no background in philosophy as well as philosophy students. Elective Pass/Fail.
415-3 Logic of Social Sciences. (Same as Sociology 415.) Logical and epistemological examination of the social sciences as types of knowledge. Basic problems in philosophy of science with major emphasis upon social science: relationship of theory to fact, nature of induction, nature of causal law, testability, influence of value judgments, etc. Intended for students with considerable maturity in a social science or in philosophy. Elective Pass/Fail.
420-3 Advanced Logic. Study of topics in logical theory and/or formal logic not treated in 320. Prerequisite: 320. Elective Pass/Fail.
425-3 Philosophy of Language. (Same as Speech Communication 465.) Introduction to basic problems in the philosophy of language, including alternative theories of meaning and reference and the relation between meaning and intention. Elective Pass/Fail.
426-3 Introduction to Mathematical Logic. (See Mathematics 426.)
432-4 Philosophy of Mathematics. (Same as Mathematics 432.) Philosophical problems of mathematics. Epistemological issues raised by non-Euclidean geometry. Representative writers on foundations, including nominalists, intuitionists, logicists and formalists. Ontological commitment, conventionalist theories of mathematical truth, logical paradoxes,

and alternative set theories; significance of the theorems of Godel and Skolem Lowenheim. Prerequisite: 320 or 15 hours mathematics. Elective Pass/Fail.
435-4 Scientific Method. Critical survey of influential descriptions of scientific method, with emphasis on natural sciences. Topics include statistical and inductive probability, crucial experiments, explanation and prediction, interpretation of scientific terms and sentences, role of reasoning in discovery, and value judgments in research. Elective Pass/Fail.
441-4 Philosophy of Politics. (Same as Political Science 403.) Some of the central problems of modern political life, such as sovereignty, world government, authority and consent, the relation of economics and social studies to political theory. Prerequisite: 340 or GSC 102 or consent of instructor. Elective Pass/Fail.
443-4 Philosophy of History. Classical and contemporary reflections on the nature of history and historical knowledge as the basis for dealing with the humanities. Prerequisite: consent of instructor. Elective Pass/Fail.
446-3 Philosophical Perspectives on Women. Survey of five different views of the relation of the concept of women to the philosophical concept of Human Nature. Elective Pass/Fail.
460-4 Philosophy of Art. The definition of art, its relation to science, culture and morals; the various types of art defined. Familiarity with at least one of the fine arts is assumed. Elective Pass/Fail.
470-6 (3, 3) Greek Philosophy. **(a)** Plato; **(b)** Aristotle. Prerequisite: 304 or consent of instructor. Elective Pass/Fail.
471-4 Medieval Philosophy. Prerequisite: 304 or consent of instructor. Elective Pass/Fail.
472-4 The Rationalists. Study of one or more of the following: Descartes, Malebranche, Spinoza, Leibniz, Wolff. Prerequisite: 305 or consent of instructor. Elective Pass/Fail.
473-6 (3, 3) The Empiricists. **(a)** Locke; **(b)** Hume. Prerequisite: 305 or consent of instructor. Elective Pass/Fail.
474-9 (3, 3, 3) 19th Century Philosophers. **(a)** Kant; **(b)** Hegel; **(c)** Marx. Prerequisite: 306 or consent of instructor.
475-3 Chinese Philosophy. Confucianism, Taoism, or Buddhism. Emphasis on comparison of philosophy East and West. Elective Pass/Fail.
477-4 Latin American Philosophy. A survey of philosophic thought in Latin America from colonial times through 19th century positivism and the reactions against it, up to recent trends. Reading of original texts in English translation. Discussions and reports. Elective Pass/Fail.
478-4 Latin American Thought. Elective Pass/Fail.
482-3 Recent European Philosophy. Philosophical trends in Europe from the end of the 19th Century to the present. Phenomenology, existentialism, the new Marxism, structuralism, and other developments. Language, history, culture and politics. Elective Pass/Fail.
486-3 Early American Philosophy. From the Colonial period to the Civil War. Elective Pass/Fail.
487-3 Recent American Philosophy. Thought of realists, idealists, and pragmatists, such as Royce, Santayana, Peirce, James, Dewey, and others. Elective Pass/Fail.
490-2 to 8 Special Problems. Hours and credits to be arranged. Courses for qualified students who need to pursue certain topics further than regularly titled courses permit. Special topics announced from time to time. Students are invited to suggest topics. Prerequisite: consent of department.
491-1 to 3 Undergraduate Directed Readings. Supervised readings for qualified students. Open to undergraduates only. Prerequisite: consent of instructor.
496-2 to 4 Independent Studies in Classics. (See Classics 496.)
500-3 Metaphysics.
501-3 Philosophy of Religion.
503-3 Philosophical Ideas in Literature.
512-3 Philosophy of Culture.
515-3 Theory of Nature.
524-6 (3, 3) Analytic Philosophy.
528-3 Social and Economic Philosophy.
530-3 Theory of Knowledge.
531-3 Whitehead.
542-3 Political and Legal Philosophy.
545-3 Ethics.
550-3 Theory of Value.
560-3 Aesthetics.
562-3 Philosophy of Human Communication.
570-3 American Idealism.
575-3 to 9 (3 per topic) Contemporary Continental Philosophy.
577-6 (3, 3) Pragmatism.
581-3 Plato.
582-3 Aristotle.

587-3 Kant.
588-3 Hegel.
590-2 to 12 (2 to 4 per topic) General Graduate Seminar.
591-1 to 16 Readings in Philosophy.
595-2 Teaching Philosophy.
599-2 to 6 Thesis.
600-3 to 32 (3 to 16 per semester) Dissertation.
601-1 to 12 per semester Continuing Research.

Photographic and Audio-Visual Technology (Program, Major)

The photographic and audio-visual technology major in the School of Technical Careers is unique in that all students complete a first year of core courses. The second year students may specialize in ultimate technical photographic laboratory curriculum or technical audio-visual curriculum.

Technical photographic courses are designed to prepare students as photographic laboratory technicians or photo finishers in industrial and commercial photographic processing agencies. Emphasis is placed on quality black and white and color photographic processes and materials. Students will study still photographic techniques in lecture/laboratory sessions and tour industrial and commercial photographic processing agencies to obtain practical understanding of commercial systems. The student should expect to invest approximately $400 for the production of a portfolio and for the purchase of special photo chemicals and supplies. Students are to provide their own fully adjustable cameras.

Technical audio-visual courses are designed to prepare students to work with industrial, university, and public school audio-visual delivery systems. Graphic production courses will enable students to broaden their marketable skills by developing technical skills essential to the production of basic graphics for audio-visual systems. Emphasis is placed on the technical quality of the work. Students should expect to invest approximately $300 for test equipment, tools, and graphic supplies.

The following representatives of the profession serve on an advisory committee which helps to keep the program responsive to the needs in the field. Current advisers are: Oscar Fisher, president, Oscar Fisher Company, Newburgh, N.Y., Gary Rossman, Photo Marketing Association, Jackson, Mich.; Sam Fox, president, Ethol Chemical Company, Chicago, Ill.; Norbert Dompke, president, Root Photographers, Chicago, Ill.; John Bellezza, sales manager, Root Photographers, Chicago, Ill.; L.N. Grubb, production manager, Elko Photo Products Company, Kansas City, Mo.; David Goldstein, president, D.O. Industries, Rochester, N.Y.

Students selecting either specialization will find job opportunities throughout industry for quality technicians. Graduates are limited only by their own talent, motivation, and willingness to move to where jobs are available. Job pay is directly commensurate with the technician's ability, resourcefulness, and drive.

A minimum of 66 credit hours is required for the major in photographic and audio-visual technology with specializaition in either photograhic laboratory or audio-visual technology. This associate degree program can be completed in two academic years at Southern Illinois University at Carbondale or in combination with community college or other acceptable extra-institutional educational experience.

Associate in Art Degree, School of Technical Careers

PHOTOGRAPHIC AND AUDIO-VISUAL TECHNOLOGY MAJOR — TECHNICAL PHOTOGRAPHIC LABORATORY SPECIALIZATION

GSD 101	3
Electronics Technology 250, 251	5

Secretarial and Office Specialties 101a	3
School of Technical Careers 102, 103, 115a, 153a	8
Photographic and Audio-Visual Technology 111, 113, 115, 209, 211, 215, 221, 251	48
Total	67

PHOTOGRAPHIC AND AUDIO-VISUAL TECHNOLOGY MAJOR — TECHNICAL AUDIO-VISUAL SPECIALIZATION

GSD 101	3
Electronics Technology 250, 251, 252	7
School of Technical Careers 102, 103, 153a	6
Photographic and Audio-Visual Technology 111, 113, 115, 209, 217, 219, 275, 279	50
Total	66

Courses

109-2 Illustration and Product Photography. An introductory photography course specifically designed for commercial graphics — design majors. Instruction which will emphasize product photography will include a study of camera controls, films, and lighting techniques. Polaroid film will be the primary photographic material used in this course. Lecture one hour, lab two hours. Prerequisite: commercial graphics — design major or consent of instructor.

111-4 Photo Processing I. Introduction to photo processing via the medium of black and white photography. Students will receive extensive darkroom work, film processing chemistry, and technical photographic assignments essential to the production of quality black and white prints. Lecture two hours, lab four hours.

113-4 Photo Processing II (Process Camera). Students will concentrate on technical operations of the process camera as a tool in total graphic production. Work is to include line copy, halftones, experimental techniques, and introduction to color separation. Emphasis will be placed upon selection of camera-ready copy as well as film, chemistry, and processing for special purpose photography. Lecture two hours, lab four hours.

115-6 Audio-Visual Equipment-Operation. In this introductory course, students will acquire a working knowledge of the projectors, recorders, and auxiliary equipment common to educational and industrial audio-visual operations. Emphasis is placed upon the proper set up and operation of equipment, integration of the equipment for special purposes, and care of software. Lecture three hours, lab six hours.

209-3 to 9 Graphics I (Basic Skills). Students will develop basic skills essential to the production of projected, non-projected, and print media. Mechanical lettering, drafting tools, image assembly, and reproduction processes are several of the included topics. Lecture 1 to 3 hours, lab 2 to 12 hours.

211-1 to 8 (1 to 3, 1 to 5) Photo Processing III (Color Positive). Students will process color reversal films by both traditional hand-processing methods and commercial lab techniques. Emphasis will be placed on quality control in film processing and distribution of final product. **(a)** Lecture one to three hours. **(b)** Lab two to ten hours. Prerequisite: 111.

215-6 Photo Processing IV (Color Negative). Students will process and print color negatives using commercial lab techniques. Emphasis will be placed on quality control in film processing, chemical replenishing, and distribution of final product. Lecture three hours, lab six hours. Prerequisite: 211.

217-6 Maintenance and Repair of Audio-Visual Equipment. Routine maintenance, troubleshooting, and repair of mechanical or electrical problems comprise the major topics of the course. Students will use basic test equipment in conjunction with equipment manufacturers repair manual to diagnose and correct malfunctions in the various types of audio-visual equipment. Lecture three hours, lab six hours. Prerequisite: 115.

219-1 to 8 (1 to 3, 1 to 5) Graphics II — Design, Planning Production. Building upon the skills acquired in Graphics I, the student will design and produce graphic materials for specific purposes. Working with thermal, photographic, diazo, stencil, and lithographic process, a student will produce all required art work as well as the final product. **(a)** Lecture one to three hours, **(b)** lab two to ten hours. Prerequisite: 209.

221-6 Photo Processing V. Advanced black and white photo processing. Students will refine skills necessary for quality film processing and printing requirements of both small individual photo labs and commercial labs. Emphasis will be on methods essential to meet specialized customer requirements. Lecture three hours, lab six hours. Prerequisite: 113, 211.

251-1 to 12 (1 to 3, 1 to 9) Photo Lab Management. Students will study the personnel and financial aspects of operating a commercial photo lab. Field trips will be taken to industrial, commercial, and general photo agencies to obtain first-hand knowledge of opera-

tions. An industrial planning package is required by each student. **(a)** Lecture one to three hours, **(b)** lab two to eighteen hours. Prerequisite: program adviser's committee consent.
275-6 Production of Multi-Media Materials. In addition to development of new skills which tie together various media processes, the student will apply knowledge of planning and production to produce a media package for a specific use. This requires a thorough knowledge of all graphic and photographic processes, equipment uses and limitations, as well as the specific needs of the user. Lecture three hours, lab six hours. Prerequisite: 217, 219.
279-1 to 9 (1 to 3, 1 to 6) Practicum. The planning, staffing, and operation of a total-media production facility is the major project within the course. Visits to educational and industrial facilities will be scheduled to enable students to see first-hand the problems and strong points of various organizations. Preparation of a market analysis and personal resume will also be required. **(a)** Lecture one to three hours, **(b)** lab two to twelve hours. Prerequisite: 47 hours in photographic and audio-visual technology.
313-3 Photography and Television for Law Enforcement. Students will use basic camera techniques and darkroom procedures essential to the use of photography as a tool to record and recall evidence. Instruction will be given on the use of portable television systems as surveillance and recording instruments.

Physical Education (Department, Major, Courses)

The major in physical education qualifies graduates for positions as teachers, coaches, or specialists in public or private elementary and secondary schools, colleges, and universities, as well as in other social agencies which utilize physical activities as a medium for education. Courses are designed to meet the requirements of state departments of education and other agencies which have adopted professional standards. The laboratory and classroom experiences in this program consist of the basic and applied sciences; classes in physical skills include a large variety of team and individual activities from sport, exercise, and dance; and courses in methods of teaching.

Additional experience may be gained through membership in professional organizations, participation on intramural and inter-collegiate teams, and through practicum experiences with service classes or with recreational and school groups.

Specializations, minors, or emphases are also available in the following areas: adapted physical education, aquatics, athletic coaching, athletic training, dance, teaching physical education in elementary schools, and teaching physical education in elementary and secondary schools. Requirements are based upon the interests and needs of the student and are consistent with certification standards. Students not interested in teacher certification may develop a special major with approval of the designated departmental representative.

In all programs, students are in contact with faculty whose reputations are nationally and internationally known and whose achievements encompass research, teaching, and service.

Bachelor of Science Degree, College of Education

General Studies Requirements 45
GSA 209, GSE 201, and 2 GSE-Physical Education courses[1]
Requirements for Major in Physical Education ..... (2) + 46
Physical Education 115a, b, c, d, e; three hours required from 116a, b, c, d, e, f; one hour required from 117a, b, c; one hour required from 118a, b, c, d, e, 320; one hour required from 119a, b, c; one hour required from 120a, b, c, d, e, f; 210; 211; 212; 214; 300; 301; 303; 305; 320; 326; 370; and one hour required from each of four of the following five areas: 215a, b, c, d; 216a, b, c, d, e; 217a, b, c; 218a, b; 220a, b, c, d ..... (2) + 38
Physiology 300 3
Physical education electives 5
Electives 5

Professional Education Requirements 25
See Teaching Education Program, page 77.
Total 121

[1]Physical education activity courses may substitute for GSE courses.

Minor in Physical Education

A student with a minor in physical education in secondary education must complete the following courses:

Required Activity Courses 7
Physical Education 115a, 115b, 115c 3
Two sports selected from Physical Education 116a, 116b, 116c, 116d, 116e, 116f 2
Two sports selected from Physical Education 117, 119, 120 2
Required Methods Courses 4
Physical Education 211, 212 2
Two hours selected from 215, 216, 217, 218, 220 2
Required Theory Courses 23
Physical Education 210, 301, 303, 305, 320, 326, 370 17
Physiology 300 3
GSA 209 (May be counted toward General Studies) 3
Total 34

Minor in Aquatics

A student must have advanced swimming skill, a current American Red Cross Advanced Lifesaving certificate, and a current Red Cross Water Safety Instructor certificate in order to enter the program. A student without those qualifications must complete GSE 101f and Physical Education 306 and 307 in addition to the requirements listed below.

Physical Education 208, 310, 311, 355a, 418 11
Eight hours selected from Physical Education 308a, b, c, d, e, or 330c 8
Total 19

Minor in Athletic Training

Students in physical education with a minor in athletic training must complete the following requirements for retention in the minor: (1) 2.5 grade point average; (2) *B* in Physiology 300; (3) *B* in Physical Education 225; and (4) complete 800 hours of clinical experience supervised by a certified trainer at Southern Illinois University at Carbondale.

Requirements for the minor are listed below.

General Studies Requirements 12
GSA 208 and 209, GSB 202, GSD 153, and GSE 201
Physical Education Requirements 19
Physical Education 225, 303, 305, 320, 325, 326, 327, 355d, 494a, b
Other Requirements 18
Psychology 303, Health Education 334 and 434, Food and Nutrition 100, Physical Therapist Assistant 208, Physiology 300

Minor in Coaching

For a minor in coaching, a student must complete the physical education requirements and a coaching sequence described below.

Physical Education Requirements 21
Physical Education 119-2, 210, 211, 303, 320, 326, 345 15
Physiology 300 3
GSA 209 (May be counted toward General Studies) 3
Coaching Sequence Requirements 6-7.5
Select one course from each of the following categories consistent with the planned coaching sport.
A. Physical Education 115, 116, 117, 119, 120, 125, 135, 306 or proficiency in the specific sport or 170 (specific varsity sport) 1-2
B. Physical Education 215, 216, 217, 220 (210 and 211 are prerequisite) 1
C. Physical Education 330 2
D. Physical Education 355c 2
E. Physical Education 360 or current official's rating ..... (0)-.5
Total 27-28.5

Minor in Dance

A student may complete a minor in dance by selecting one of the three emphases below.
1. Intended for the student whose primary interest is in the area of ballet and modern dance.
Technique Courses 13
Physical Education 140a, b, 150a, b, 240a, b
One hour from GSE 103a, b, c, Physical Education 118b, c, d
Methods and Theory Courses 16
Physical Education 115b, 273a, b, 304, 313, 379, 416
Public dance performance required.
Total 29
2. Intended for the student whose primary interest is in the teaching of folk, square or social dance to students of all ages.
Technique Courses 12
GSE 103d, g, h, Physical Education 140a, 273a
One hour from GSE 103a, b, c, Physical Education 118b, c, d
Methods and Theory Courses 15
Physical Education 115b, 200, 210, 211, 212, 304, 313, 355e, and 218a or b
Total 27
3. Intended for the student interested in teaching in privately owned studios, recreation organizations or community theater program this emphasis provides a broad background in dance techniques as well as teaching methods.
Technique Courses 11
GSE 103g, h, Physical Education 140b, 150a, b, and 140a or GSE 103d
One hour from GSE 103a, b, c, Physical Education 118b, c, d
Methods and Theory Courses 13
Physical Education 115b, 304, 313, 416, and 273a or b
Two hours of elective dance courses
Public dance performance required
Total 24

115-(1 per part) Development of Skill and Identification of Teaching Techniques of Physical Activities. (a) Aquatics. Prerequisite: GSE 101a or consent of instructor. (b) Rhythms and dance. (c) Exercise and conditioning. (d) Track and field. (e) Tumbling and gymnastics.

116-(1 per part) Development of Skill and Identification of Teaching Techniques of Team Sports. (a) Basketball. (b) Field hockey. (c) Flag Football. (d) Soccer. (e) Softball. (f) Volleyball.
117-(1 per part) Development of Skill and Identification of Teaching Techniques of Racquet Sports. (a) Badminton. (b) Handball/racquetball. (c) Tennis.
118-(1 per part) Development of Skill and Identification of Dance. (a) Contemporary. (b) Folk. (c) Social. (d) Square. (e) Tap. Prerequisite: 115b.
119-(1 per part) Development of Skill and Identification of Teaching Techniques of Combatives and Weight Training. (a) Self defense. (b) Weight training. (c) Wrestling.
120-(1 per part) Development of Skill and Identification of Individual and Dual Activities. (a) Archery. (b) Boating. Prerequisite: maintaining safe position in deep water for ten minutes. (c) Bowling. (d) Fencing. (e) Golf. (f) Orienteering.
125-(1 per part) Intermediate Sport Skills. (a) Fencing. Prerequisite: 120d, GSE 104f, or consent. (b) golf. Prerequisite: 120e, GSE 104h, or consent. (c) Sailing. Prerequisite: consent. (d) Tennis. Prerequisite: 117c, GSE 104n, or consent.
135-(1 to 3 per part) Advanced Level Sport Skills. (a) Distance running. (b) Folk dance. (c) Gymnastics. (d) Kodokan Judo. (e) Orienteering. (f) Scuba. (g) Self defense. Prerequisite: consent of instructor.
140A-2 Beginning Modern Dance. Technique I (semester one). Emphasis placed on proper body alignment and mechanics of breathing and phrasing, vocabulary and terminology, improvisation, and creative movement. Offered fall semester.
140B-2 Beginning Modern Dance. Technique II (2nd semester). Offered spring semester. Prerequisite: 140A or GSE 103D and consent of instructor.
150A-2 Beginning Classical Ballet. Technique (semester one). An introduction to the traditional techniques of the classical dance as an academic craft and style that serves as a basis for logical physical training of the dancer, choreographer, and the teacher. Terminology employed to represent definite positions, steps, and movements to permit transmission of ideas in dance terms to offer the beginner an initial chart for understanding of traditional steps and complete phrases in the classical ballet idiom.
150B-2 Beginning Classical Ballet. Ballet Technique (semester one). Continued study of the beginning syllabus with emphasis placed on center practice. Prerequisite: 150A and consent of instructor.
170-2-4 (2 per part) Varsity Sports. (a) Football. (b) Basketball. (c) Track. (d) Tennis. (e) Gymnastics. (f) Baseball. (g) Golf. (h) Swimming and diving. (i) Cross country. (j) Wrestling. (k) Field Hockey. (l) Softball. (m) Volleyball. (n) Badminton. Prerequisite: participation as member of a varsity team. Mandatory Pass/Fail.
200-2 Body Mechanics and Exploratory Movement in Physical Activities for Primary Children. Provides a comprehensive coverage of the educational elements in basic movement education, its interpretation, analysis, terminology, structure, methods of teaching, and evaluative techniques. Observatory experiences provided.
201-3 Fundamental Skills and Activities of Low Organization for Children. Presents the entire scope of the physical education program for children in the intermediate grades. Course objectives program planning, facilities, supplies and equipment, the basic activities representative of a comprehensive sports and games program, and the design of progress reports. Observatory experiences provided.
202-3 Physical Activities for Children and Youth. Developing activities for motor perceptual development and skill acquisition appropriate for different age levels of children and youth. Tennis shoes required. Dress must permit ease of movement. Prerequisite: at least sophomore standing.
205-1 Physical Problems of the School Age Student. Reviews the common physical disabilities which occur in children. Examines both acute and chronic injuries and diseases with reference to the type of physical activities best adopted by the physical problems. Prerequisite: Physiology 300.
207-2 History of Physical Education. The background and development of physical education.
208-3 Instructor of Swimming. Designed to prepare the student to teach beginning swimming through lifesaving to pre-school through adult groups.
210-2 Motor Learning. Presents the basic learning principles which underlie motor skill performances associated with physical activity and sports and examines the variables affecting skill learning. Prerequisite: at least sophomore standing.
211-1 Method of Teaching Secondary School Physical Education. Involves a clinical experience as pre-student teaching in which the assignment may be to instuctional classes in school or college or to children in community sponsored programs. Prerequisite: 210, and at least sophomore standing.
212-1 Teaching Practicum. Laboratory experience with children in a school, or recreational setting or assisting in a GSE course at the University. Laboratory experience may also be arranged with special populations of children. Prerequisite: 211. Mandatory Pass/Fail.

214-3 Methods of Teaching Elementary Physical Education. For supervisors and teachers of physical education. Curriculum planning based on grade characteristics and educational philosophy, presentation of skills including skill tests, lead-up games, stunts and tumbling, games of low organization, creative rhythms, singing games, and folk dance. Second level (advanced course 314). Tennis shoes and appropriate dress for activity required. Open only to physical education majors. Prerequisite: 210, and at least sophomore standing.
215-(1 per part) Methods of Teaching Physical Education Activities. **(a)** Conditioning and weight training. **(b)** Swimming. **(c)** Track and field. **(d)** Tumbling and gymnastics. Prerequisite: 211, and the corresponding 115 course.
216-(1 per part) Methods of Teaching Team Sports. **(a)** Basketball. **(b)** Field hockey. **(c)** Soccer. **(d)** Softball. **(e)** Volleyball. Prerequisite: 211, and corresponding 116 course.
217-(1 per part) Methods of Teaching Racquet Sports. **(a)** Badminton. **(b)** Handball/racquetball. **(c)** Tennis. Prerequisite: 211, and corresponding 117 course.
218-(1 per part) Methods of Teaching Dance. **(a)** Modern **(b)** Folk, square, social. Prerequisite: 211, and corresponding course.
220-(1 per part) Methods of Teaching Individual and Dual Activities. **(a)** Archery. **(b)** Bowling. **(c)** Golf. **(d)** Wrestling. Prerequisite: 211, and corresponding 120 course.
223-1 Techniques of Teaching Recreational Sports. Analysis and methods of teaching recreational sports. Prerequisite: 210.
225-1 Introduction to Athletic Training. Designed for the non-physical education major who desires to acquire the minimum essentials for athletic training. Principle of training and conditioning, the injury conditions in various body parts, and primary treatment procedures.
226-1 Taping Techniques. To familiarize the student with all aspects of taping including practice taping experience for athletic injuries.
240A-2 Intermediate Modern Dance. Technique I (semester one). Emphasis placed on movement which is problematic to the individual. Focus placed on technique, style, and creative movement. Offered fall semester. Prerequisite: 140B and consent of instructor.
240B-2 Intermediate Modern Dance. Technique II (2nd semester). Continuation of 240A. Offered spring semester. Prerequisite: 240A and consent of instructor.
250A-2 Intermediate Classical Ballet. Ballet Technique (semester one). Progressive training toward mastery of body mechanics of the classical ballet syllabus, a continuation of syllabus work and terminology with emphasis on center practice — adagio, allegro, and movements en l'air. Prerequisite: 150B and consent of instructor.
250B-2 Intermediate Classical Ballet. Ballet-Technique (2nd semester). Continued study of the intermediate syllabus. Prerequisite: 250A and consent of instructor.
257-1 to 5 Current Work Experience. The student receives credit for current work experiences. Credit is awarded for many practical experiences and must be related to physical education and in process. Prerequisite: at least *C* average in physical education after 12 hours. Mandatory Pass/Fail.
258-1 to 5 Work Experience. The student receives credit for past work experiences. Credit is awarded for many practical experiences and must be related to physical education and already completed. Prerequisite: at least *C* average in physical education courses after 12 hours. Mandatory Pass/Fail.
273-4 (2, 2) History of the Dance. **(a)** The study of dance from primitive sources through the 19th century. **(b)** Dance as an art form in the 20th century.
300-2 Principles of Physical Education. Designs a structure of knowledge which underlies the practice of physical education with particular reference to a philosophical framework which embraces the moral and ethical values related to the function of personnel in the environment of physical education and competitive sport.
301-2 Organization and Administration of Physical Education. Consideration of the special problems related to the organization and administration of the curriculum, facilities and equipment, personnl management, budget making, legal liability, and public relations.
302-2 Kinesiology of Normal and Pathological Conditions. Force system, its relation to the mechanic of muscle action. Analysis of muscular-skeletal forces involved in physical activities. Prerequisite: Physiology 300.
303-3 Kinesiology. Force system, its relation to the mechanics of muscle action. Analysis of muscular-skeletal forces involved in physical education activities. Prerequisite: Physiology 300.
304-2 Mechanical Basis of Human Movement. Applies body mechanics with application of mechanical laws and principles to performance in physical activities.
305-2 Physical Education for Special Populations. Understanding the characteristics, limitations, and activity needs of students with physical, mental, or emotional limitations; and procedures for organizing and conducting a physical education program for such special students. Prerequisite: at least junior standing.
306-1 Advanced Swimming, Skill and Analysis. Prerequisite: GSE 101b or equivalent.
307-2 Water Safety Instructor. Methods of teaching swimming and lifesaving. American Red Cross Water Safety Instructor certificate may be earned. Bathing cap recommended.

Pool suit supplied or one piece nylon tank suit required. Prerequisite: 306 and current Red Cross advanced lifesaving certification. Elective Pass/Fail.

308-2 to 10 (2, 2, 2, 2, 2) Instructor of Aquatics. (a) Handicapped. (b) Skin diving. (c) Scuba diving. (d) Canoeing. (e) Swimming. Prerequisite: consent of instructor.

310-2 Aquatics Facilities Management. Learning experiences designed to aid in the development of aquatic specialists who can efficiently work toward satisfactory solutions to the problems inherent in functional design, operation,, and maintenance of aquatic facilities that are associated with schools, municipalities, and other organizations.

311-2 Lifeguarding. The skills and techniques for preparing selected individuals related to the aquatic lifeguarding task and training in the specifics of being a part of the aquatic lifeguarding system. Prerequisite: pass swimming test.

312-3 Dance Philosophies. An extensive survey of past and present choreographers and dance specialists whose movement theories and philosophies have been most influential in the continuing creative growth of dance as an art form.

313-3 Dance Composition. Introduction to choreography as an art form with special emphasis given to the use of space, time, and energy. Prerequisite: four semesters of dance technique.

314-2 Advanced Methods of Teaching Elementary Schools (Physical Education). Prerequisite: 202 or 214.

320-3 Physiological Basis of Human Movement. Immediate and long range effects of muscular activity on the systems. Integrative nature of body functions and environmental influences on human performance efficiency. Laboratory to be arranged. Prerequisite: GSA 209 or equivalent.

324-2 Advanced Methods of Teaching Special Populations. Prerequisite: 305.

325-2 Training Room Techniques. Intended for the student who wishes to complete a specialty as athletic trainer. Provides knowledge concerning the organization and administration of a training room, the installation and use of its modalities, and general procedures on training room operational functions. Prerequisite: Physiology 300.

326-2 Emergency Care and Prevention. The theoretical and practical methods of preventing and treating athletic injuries; techniques of taping and bandaging; emergency first aid; massage; use of physical therapy modalities. Lecture and laboratory sessions. Prerequisite: Physiology 300.

327-2 Medical Aspects of Athletic Injury. The student will acquire an advanced understanding of the proper prevention and rehabilitation of athletic injuries. The student will also understand medical and surgical procedures and their consequent factors to be considered in treatment programs. Prerequisite: 326.

329-2 Principles and Procedures for the Conduct of Interscholastic Athletics. An examination of the history, values, and trends in extracurricular sports programs. A review of regulations and standards as determined by the governing bodies for men's and women's sports and an in-depth study of coaching and administrative procedures. Prerequisite: competitive experience recommended and consent of instructor.

330-2-26 (2 per part) Techniques and Theory of Coaching. (a) Basketball. (b) Football. (c) Swimming. (d) Baseball. (e) Track and field. (f) Wrestling. (g) Tennis. (h) Gymnastics. (i) Golf. (j) Badminton. (k) Field hockey. (l) Softball. (m) Volleyball. Prerequisite: consent of instructor.

340A-2 to 4 (2, 2) Advanced Modern Dance. Technique I, semester one. Emphasis on technical and style development. Students assigned work in creative movement and performance. Prerequisite: 240B and consent of instructor.

340B-2 to 4 (2, 2) Advanced Modern Dance. Technique II, 2nd semester. Offered Spring semester. Continuation of 340A. Prerequisite: 340A and consent of instructor.

345-2 Psycho-Socio Aspects of Physical Education. Provides an overview of the key sociological and psychological concepts that are applicable to athletics and to physical activity. This course is intended as an introduction to the disciplines of sociology of sport and sport psychology. Prerequisite: junior standing.

350A-2 to 4 (2, 2) Advanced Classical Ballet. Ballet technique, semester one. Study of the advanced classical ballet syllabus. Attention to the individual progress in center practice: adagio, allegro, steps en l'air, and enchainment. Applications of the classical technique as a means of expression as an art form. Prerequisite: 250B and consent of instructor.

350B-2 to 4 (2, 2) Advanced Classical Ballet. Ballet technique, 2nd semester. Continued study of the advanced syllabus. Introduction to variations sur la pointe (women) Pas de deux. Prerequisite: 350A and consent of instructor.

355-2 to 10 (2, 2, 2, 2, 2) Practicum. (a) Aquatics. (b) Special Populations. (c) Coaching. (d) Athletic Training. (e) Dance.

360-.5 to 2 (.5 per part) Theory of Officiating. (a) Badminton. (b) Basketball. (c) Field hockey. (d) Football. (e) Gymnastics. (f) Softball. (g) Competitive swimming. (h) Synchronized swimming. (i) Track and field. (j) Volleyball. (k) Wrestling. Prerequisite: the corresponding activity course.

362-1 to 2 Teaching Physical Education Activities. Teaching various activities in the area of sport with specific emphasis on current methods and approaches to learning physical education skills. Elective Pass/Fail.
369-2 Improving Teaching Through Testing (Workshop). Teaching aids, diagnostic measures, practices, and standardized tests for a variety of physical skills. Principles of programmed learning applied to psychomotor tasks.
370-3 Measurement and Evaluation in Physical Education. The theory of measurement in physical education, the selection and administration of appropriate tests of motor skills and the interpretation of results. Projects required. Prerequisite: junior standing.
375-2 Introduction to Research in Physical Education. Prerequisite: junior standing.
379-3 Advanced Dance Composition. Development of compositional skills, choreographic techniques for large groups, mastery of the solo dance, form, and individual movement problems choreographed and performed. Prerequisite: 313.
400-3 Evaluation in Physical Education. Historical background of measurement in physical education; selection and evaluation of contemporary testing devices (predominantly tests of motor skill); structure and use of tests; administering the testing program; and statistical manipulation and interpretation and application of results.
402-2 Organization and Administration of Intramural and Extramural Activities. Planning intramural programs of sports. Planning and coordinating extramural activities commonly associated with physical education.
403-2 Developmental Movement Experiences Designed for the Special Child. Movement performance as applied to children of special populations. Study of movement theory and its application to developmental needs and motor-perceptual performance.
404-2 The Teaching of Sports. Principles of learning applied to selected sports; progressions, teaching methods, and related summaries of research.
407-2 Advanced Theory and Techniques in the Prevention and Rehabilitation of Athletic Injuries. The application of scientific principles to the theoretical and practical methods of preventing and treating athletic injuries.
408-2 Physical Fitness: Its Role and Application in Education. An analysis of physical fitness as it relates to the total well-being of people. Specific units on the fitness parameters, hypokinetic disease and physical inactivity, stress, current level of fitness, training programs, and the beneficial aspects of regular exercise. Major emphasis is placed upon incorporating current thinking on physical fitness into the development of teaching models.
409-3 Social Aspects of Sport and Physical Activity. This course presents an analysis of the social implications of sport on society and includes consideration of sports in relation to sexual identifications, women, minority groups, politics, political activism, social deviance, and other related areas.
410-3 Behavioral Foundations of Coaching. Behavioral problems of the athlete and the coach and possible solutions to such problems. Application of behavioral principles and theories as a basis for understanding the interaction between coach and student in the athletic environment.
415-1 to 6 (1 per topic) Workshop in Sports. A concentrated experience in the latest theories and techniques of selected sports activities. Emphasis is placed on individual and team drills, intstructional materials and improved teaching methods. One semester hour for each workshop. A total of four hours only of such workshop experience may be credited toward the master's degree. Workshop titles are: **(a)** Baseball. **(b)** Basketball. **(c)** Field hockey. **(d)** Football. **(e)** Gymnastics. **(f)** Soccer. **(g)** Softball. **(h)** Swimming. **(i)** Track and field. **(j)** Volleyball. **(k)** Tennis **(l)** Athletic training.
416-3 Current Theories and Practices in the Teaching of Dance. Designed to aid a critical evaluation and analysis of dance as an educational tool, from creative dance for children through dance in the University curriculum. Specific techniques, creative ideas, class organization, and general evaluation will be included. Notebook required. Prerequisite: four semesters of dance technique.
418-2 Administration of Aquatics. The study of comprehensive aquatic programs, their implementation and coordination.
420-3 Physiological Effects of Motor Activity. The general physiological effects of motor activity upon the structure and function of body organs; specific effect of exercise on the muscular system. Requires purchase of laboratory manual. Prerequisite: GSA 209 or equivalent.
444-2 to 6 Contemporary Dance Workshop. Dance technique and theory, composition, improvisation, and production. Advanced study of the problems of choreography and production in their presentation as theater. Public performance is required. Prerequisite: one year of technique and theory or equivalent.
493-2 to 4 Individual Research. The selection, investigation, and writing of a research topic under supervision of an instructor. **(a)** Dance. **(b)** Kinesiology. **(c)** Measurement. **(d)** Motor development. **(e)** Physiology of exercise. **(f)** History and philosophy. **(g)** Motor learning. **(h)** Psycho-social aspects. Written report required. Prerequisite: consent of adviser and department chairperson.

494-2 (1, 1) Practicum in Physical Education. Supervised practical experience at the appropriate level in selected physical education activities in conjunction with class work. Work may be in the complete administration of a tournament, field testing, individual or group work with special populations, administration of athletics or planning physical education facilities. Prerequisite: consent of adviser.
500-3 Techniques of Research.
501-3 Curriculum in Physical Education.
503-2 Seminar in Physical Education.
505-2 to 6 (2 per topic) Topical Seminar in Physical Education.
506-2 Topical Seminar in the Assessment of Motor Performance.
508-2 Administration of Athletics.
510-2 Motor Development.
511-2 Analysis of Human Physical Movement.
512-2 Biomechanics of Human Motion.
513-3 Perceptual Motor Learning of Physical Skills.
515-3 Body Composition and Human Physical Performance.
517-2 Athletic and Physical Education Facilities Design, Construction, and Maintenance.
520-3 Metabolic Analysis of Human Activity.
530-2 Seminar in Research in Motor Performance.
590-1 to 4 Readings in Physical Education.
592-3 Research Projects in Physical Education.
599-3 to 6 Thesis.
600-1 to 32 (1 to 16 per semester) Dissertation.
601-1 to 12 per semester Continuing Research.

Physical Therapist Assistant (Program, Major, Courses)

The physical therapist assistant program, which has been accredited by the American Physical Therapy Association, is designed to prepare the student to work under the direction of a licensed physical therapist to treat disabilities resulting from birth defects, disease, or injury. Following the prescriptions of a physician, the therapist helps the patient to develop strength, mobility, and coordination, and provides relief from pain.

Students will learn massage, exercise, ultra sound, hydrotherapy and other therapeutic techniques in actual practice in the University's Clinical Center. They will work with professional therapists in learning such complex procedures as administering manual muscle tests, electrical muscle and nerve tests, and other evaluative measures.

Before graduation the student will serve a twelve-week internship in two separate hospitals away from the university campus.

The program is served by an advisory committee which provides supportive expertise. Current members are: David Collins, chief physical therapist, St. Mary's Hospital, Decatur; Virginia Daniel, chairman, department of physical therapy, School of Related Health Sciences, Chicago Medical College; Dr. Harold Kaplan, department of physiology, Southern Illinois University at Carbondale; Laird Wisely, director, physical medicine, Good Samaritan Hospital, Mt. Vernon, Illinois; Barbara Freeman, physical therapist assistant, Springfield; and Linda Juhler, student, Carbondale.

The student should expect to spend approximately $100.00 for uniforms and insurance.

Increasing numbers of elderly and chronically ill persons and the rapid expansion of health care programs in both urban and rural areas have created an urgent demand for trained physical therapists. Employment opportunities are available in hospitals, rehabilitation centers, and extended care facilities.

Physical therapy provides a unique service and requires a close interpersonal relationship with the patient. The candidate must possess the following qualities to work with people. 1) good mental and physical health, 2) stamina, 3) good coordination and manual dexterity, and 4) spirit of cooperation.

The prospective student should plan to make early application for admission to this program because enrollment is limited by size of faculty and physical facilities.

This associate degree program can be completed in two academic years, plus one summer session, at Southern Illinois University at Carbondale or in combination with community college or other acceptable extra-institutional educational experience.

Associate in Art Degree, School of Technical Careers

Requirements for Major in Physical Therapist Assistant

GSA 101, 106, 208, 209	10
GSB 202	3
GSD 101, 152	5
Health Education 334	3
Physiology 300	3
Physical Education 302, 320, and 325 or 326	7
Psychology 301, or 303, or 304, or 305	3
Zoology 118	4
Physical Therapist Assistant 100, 113, 202, 203, 204, 205, 207, 208, 209, 213, 214, 321, 322	33
Electives	3
Total	74

Courses

100-2 Physical Therapy Orientation. Students will be able to describe the historical background, professional ethics, and legal aspects of physical therapy practice. They will be able to understand and utilize specialized medical terminology. They will be able to prepare treatment areas and patients for treatment. They will be able to understand the relationship of physical therapy to total health care. Lecture one hour. Laboratory two hours. Mandatory Pass/Fail.

113-1.5 Therapeutic Modalities I. The student will be able to demonstrate procedures used in the safe application of local heat and cold such as hot and cold packs, infra-red, and paraffin bath, and will also be able to demonstrate safe hydrotherapy procedures such as whirlpool and contrast baths. Lecture one hour. Laboratory two hours. Eight weeks.

202-2 Physical Rehabilitative Techniques. The student will be able to demonstrate rehabilitative procedures such as bed positioning, range of motion exercises, transfer activities and gait training, and will understand the concepts of total rehabilitation. Lecture one hour. Laboratory two hours.

203-1 Pathology. The student will be able to understand the fundamental basis of disease. Emphasis will be placed on those conditions treated through physical therapy procedures. The student will be able to describe the process of inflammation and repair bone and soft tissue injuries. Lecture one hour. Prerequisite: GSA 209.

204-2 Physical Therapist Assistant, Practicum I. Students will be able to carry out routine physical therapy assisting procedures with selected patients. They will be able to demonstrate previously learned skills in massage, hydrotherapy, range of motion exercises, activities of daily living, and the safe application of heat and cold. They will also be able to assist in maintaining records and equipment. Lecture one hour. Laboratory three hours. Prerequisite: 113, 202, 207.

205-2 Physical Therapy Science. The student will be able to describe selected medical and surgical conditions from the standpoint of etiology, clinical signs and symptoms, and physical therapy treatment. Lecture two hours. Prerequisite: 100, GSA 209, Physiology 300.

207-1.5 Massage. The student will be able to demonstrate massage techniques for specific conditions through role playing and supervised application of massage to selected patients, and will understand the scientific principles of massage and be aware of indications and contraindications for massage. Lecture one hour. Laboratory three hours. Eight weeks. Prerequisite: concurrent enrollment in 100 and consent of instructor.

208-3 Therapeutic Exercise I. Design to teach basic exercises for individual muscles or muscles groups, including breathing and postural exercises. Successful students will learn to select exercises for specific results; i.e., increasing strength, coordination, endurance, and range of motion. They will also learn normal motor development reflexes. Lecture two hours. Laboratory three hours. Prerequisite: Physiology 300.

209-3 Therapeutic Exercise II. Successful students will be able to administer therapeutic

exercise techniques for specific clinical conditions through demonstrations and supervised application of exercise for selected patients. They will understand the scientific principles of therapeutic exercise and acquire the skills to effectively and safely utilize exercise equipment. Lecture two hours. Laboratory two hours. Prerequisite: 208, Physiology 300.

213-2 Therapeutic Modalities II. The student will be able to demonstrate procedures used in the safe application of local heat and cold such as diathermy, ultra violet, and ice massage and understand their physiologic effects. The student will be able to describe the indication and contraindications for the use of heat and cold. Lecture one hour. Laboratory two hours. Prerequisite: GSA 101.

214-3 Physical Therapist Assistant, Practicum II. Successful students will be able to carry out more complex physical therapy assisting procedures with selected patients. They will be able to demonstrate previously learned skills in therapeutic exercise, electrical muscle stimulation, and the safe application of such modalities as ultra sound,, diathermy, and ultra violet. They will be able to assist in maintaining records and develop cooperative spirit with other members of the department. Lecture one hour. Laboratory five hours. Prerequisite: 204, 208, 213.

321-8 (4, 4) Clinical Internship. The successful student will be able to apply previously learned theories and techniques of patient care through closely supervised practicum experience in two separate physical therapy facilities. **(a)** First six week internship. **(b)** Second six week internship. Must be taken in a,b sequence. Prerequisite: completion of all other requirements with a minimum grade average of 2.0.

332-2 Clinical Seminar. Students will be able to discuss with the coordinator of the program patient care and problems encountered during internship. They will have the opportunity to evaluate their educational experience at Southern Illinois University at Carbondale and their clinical internship experience. Prerequisite: concurrent enrollment in 321. Mandatory Pass/Fail.

Physics and Astronomy (Department, Major [Physics], Courses)

The undergraduate major in physics leading to the Bachelor of Science degree provides for a mastery of basic principles and methods of classical and modern physics and for flexibility in application through a breadth of coverage. Students considering a major in physics are urged to consult with the undergraduate adviser of the physics department. An applied physics/experimental physics optional curriculum is provided by selecting from the courses marked with an asterisk in the list of courses required for a major in physics.

Bachelor of Science Degree, College of Science

General Studies Requirements		45[1]
Supplementary College of Science Requirements		11
Foreign Languages (French, German, or Russian recommended)	(4) + 4	
Biological Science (Not General Studies)	6[3]	
Mathematics 111	(4) + 1	
Requirements for Major in Physics		72-73
Chemistry 115[2] and 222a, or 222a,b, or 224, 225		7-8
Mathematics 150, 250, 251, 305, and 306 or 406 or 407		17
Physics		48
Physics 205a, b, c and 255a, b, c	12	
Physics 301, 310, 320, 345, 410, 420, 430	20	
16 hours from 324*, 328*, 351*, 424*, 425, 428* 431, 432, 445, 450*, 460a*, 460b*, 470, 470* *Applied/experimental option, concentrating on laboratory courses	16	
Total		128-129

[1]The 45 hour requirement may be reduced by taking College of Science or major requirements which are approved substitutes for General Studies courses.

[2]For students who do not pass a proficiency examination in chemistry.

[3]If courses are selected which are approved General Studies substitutes the hours earned will reduce the 45 hour requirement in General Studies.

Bachelor of Science Degree, College of Education

For this degree the requirements differ from those for the Bachelor of Science degree in the College of Science in the following respects: no foreign language is required, but 4 hours of General Studies foreign language may be counted toward the GSC requirement in the College of Education. Twenty-two hours of physics courses above the 200 level are required, including 310, 320, 430, 431, and either 425 or 432, and any three of the following courses which include laboratory: 324, 351, 424, 450, 460a, 470. To obtain the degree of Bachelor of Science in the College of Education students must satisfy requirements of that college. See Teacher Education Program, page 77.

Audio Marketing

Students interested in preparing themselves for positions related to audio-marketing within the high-fidelity industry are encouraged to take the following courses, which will provide skills needed for a career in high-fidelity sales:

Science Courses: GSA 101, Physics 325, 355
Music Courses: GSC 100, GSA 361
Business Courses: Accounting 210 or 221; GSB 211 or Economics 214 or 215; Marketing 304, 401

Minor

A minor in physics requires 17 hours and must include Physics 203a, b and 253 a, b, or 205a, b and 255a, b and either 205c and 255c or 302 and 255c; 324 or 328 and 351 (no calculus prerequisite). Students having completed calculus (through Mathematics 251) may select 345 and those taking differential equations may select from 310, 410, and 320, 420, to meet requirements.

Recommended electives:

Chemistry: 226, 340, and 460 or 462
Engineering: 222, 313, 361
Electrical Sciences and Systems Engineering: 421, 426
GSB: 211
Geology: 416, 435, 436
Mathematics: 221, 306, 406, 407, 421, 452, 455, 475, 480, 481, 483

Courses

102-1 Everybody's Einstein. A non-mathematical presentation of Einstein's relativity theories on a popular level.

203-6 (3, 3) College Physics. Designed to meet preprofessional requirements and the needs of all students in the sciences, except physics and engineering. **(a)** Mechanics, heat, and sound; **(b)** Electricity, magnetism, light, and quantum physics. Three lectures, one quiz session. Prerequisite: Mathematics 110b or 111. Elective Pass/Fail.

205-9 (3, 3, 3) University Physics. **(a)** Introduction to mechanics of rigid bodies and fluids; wave motion, heat, kinetic theory, and thermodynamics. Prerequisite: Mathematics 150 or concurrent enrollment. **(b)** Continuation of 205a. Electricity and magnetism, geometrical optics, diffraction, interference, quantum physics. Three lectures per week. Prerequisite: 205a. **(c)** Introduction to concepts in modern atomic, molecular, and nuclear physics: particles and waves, relativity and quanta. Three lectures per week. Prerequisite: 203 or 204 or 205a,b. Elective Pass/Fail.

206T-1 College Physics. Same as the first half of 206b, with topical order of heat, sound, and light.

207T-.3 College Physics Laboratory. Same as the first half of 207b, with topical order of heat, sound, and light.

211T-1 University Physics. Same as first half of 211b, with topical order of heat, sound, and light.

212T-.3 University Physics Laboratory. Same as first half of 212b, with topical order of heat, sound, and light.

253-2 (1, 1) College Physics Laboratory. One three-hour laboratory period per week, taken concurrently with 203. Elective Pass/Fail.

255-3 (1, 1, 1) University Physics Laboratory. **(a), (b)** Laboratory courses that accompany 205a, b respectively. Prerequisite: concurrent enrollment in 205. **(c)** One three-hour labora-

tory period per week. Experiments relating to concepts of modern physics. Prerequisite: 203 or 204 or 205a, b and 205c or 302 or concurrent enrollment. Elective Pass/Fail.

301-2 Theoretical Methods in Physics. Introduction to theoretical methods of general usefulness in intermediate and advanced undergraduate physics, with particular emphasis on applications of these methods to selected topics. Required of all physics majors prior to taking 310 or 320. Prerequisite: 203a or 204a or 205a, Mathematics 250 or consent of instructor. Elective Pass/Fail.

302-3 Astronomy — Honors. Current knowledge of the universe and the gathering of that knowledge. Includes properties of the solar system and theories of its origin, the structure and evolution of stars. Supplemented by occasional hours of evening observation. Prerequisite: one of 203a, 204a, 205a, plus Mathematics 111, or consent of instructor. Elective Pass/Fail.

310-3 Mechanics I. Motions of systems of particles and rigid bodies: gravitation, moving coordinate systems. Prerequisite: 301 or Mathematics 305 or concurrent enrollment. Elective Pass/Fail.

320-3 Electricity and Magnetism I. The theory of electric and magnetic fields; electrostatic fields in vacuum and in material media, special methods for the solution of electrostatics problems, energy, and force relations in electrostatic fields; stationary electric fields in conducting media, electric currents, magnetic fields, magnetic properties of matter. Prerequisite: 301 or Mathematics 305 or concurrent enrollment. Elective Pass/Fail.

324-3 Analog Electronics for the Scientist. Coordinated two-hour lecture and two-hour laboratory study in analog electronics. Emphasis is on overall modern electronics and its applications in the experimental research laboratory setting. Topics include DC and AC circuit theory, transducers and measurement techniques, semiconductor active devices, operational amplifiers and feedback, signal recovery and processing techniques, and noise reduction. Prerequisite: 203b or 205b and Mathematics 111. Elective Pass/Fail.

325-3 Advanced High-Fidelity. A study of the more advanced scientific concepts in high fidelity including Quadraphonic sound, FM and AM modulation, Noise Reduction Systems, Equalizers, as well as discussions on the important technical parameters of tuner, tape decks, speakers, microphones, amplifiers, cartridges, turntables, and headphones. Prerequisite: GSA 101.

328-2 Light. Light propagation, reflection, refraction, interference, diffraction, polarization, and optical instruments. Prerequisite: 203 or 204 or 205. Elective Pass/Fail.

345-3 Thermodynamics and Statistical Physics. Thermal behavior of macroscopic matter, the laws of thermodynamics; basis for thermodynamics in statistical mechanics; basic methods and applications of classical and quantum statistical mechanics. Elementary kinetic theory of matter. Prerequisite: 301, Mathematics 251. Elective Pass/Fail.

351-1 Optics Laboratory. Advanced experiments in geometrical and physical optics. One three-hour laboratory per week. Prerequisite: 328 or concurrent enrollment. Elective Pass/Fail.

355-1 Advanced High-Fidelity Laboratory. The lab accompanies Physics 325 and allows students to perform all of the electronic measurements necessary to characterize high fidelity components. Measurements will include such specifications as distortion, frequency response, stereo separation, power levels, FM sensitivity, selectivity, etc. Prerequisite: concurrent or previous enrollment in 325.

401T-1 Mechanics. Same as first half of Physics 401.

410-3 Mechanics II. Lagrange's equations, mechanics of continuous media, inertia and stress tensors, rotation of rigid bodies, small vibrations, and advanced principles. Prerequisite: 310 or consent of instructor. Elective Pass/Fail.

415T-2 Modern Physics. Same as 415B and second half of 430, offered during the second half of the fall semester (415A-3 quarter hours plus 415B-two semester hours equals 430-four semester hours.)

420-3 Electricity and Magnetism II. Induced electromotive force, quasisteady currents and fields, Maxwell's equations, electromagnetic waves and radiation, with applications. Prerequisite: 320 or consent of instructor. Elective Pass/Fail.

424-3 Digital Electronics for the Scientist. Coordinated two-hour lecture and two-hour laboratory study of digital electronics, microprocessors and minicomputers with emphasis on their application to the experimental research laboratory setting. Topics include Boolean algebra, basic digital techniques, large scale integration devices, analog to/from digital conversion, microprocessors and minicomputers, and data acquisition. Prerequisite: 324 or consent of instructor. Elective Pass/Fail.

425-3 Solid State Physics I. Structure of a crystalline solid; lattice vibrations and thermal properties; electrons in metals; band theory; electrons and holes in semiconductors; optoelectronic phenomena in solids; dielectric and magnetic properties; superconductivity. Prerequisite: 310, 320, 345, and 430 or consent of instructor. Elective Pass/Fail.

428-3 Modern Optics. Advanced course in modern optics covering such topics as interference and interferometers, diffraction, coherence, holography, optics of solids, laser and non-linear optics; recent developments in optical instrumentation for research. Prerequisite: 328 and 420. Elective Pass/Fail.

430-3 Quantum Mechanics I. An introduction to quantum mechanics including its experimental basis and application in atomic physics. Prerequisite: 310 and 320. Elective Pass/Fail.
431-3 Atomic and Molecular Physics I. Atomic spectra and structure; molecular spectra and structure; application to lasers. Prerequisite: 430. Elective Pass/Fail.
432-3 Nuclear Physics I. Basic nuclear properties and structure; radioactivity, nuclear excitation, reactions, nuclear forces; fission and nuclear reactors; controlled nuclear fusion. Prerequisite: 430. Elective Pass/Fail.
445-3 Statistical Mechanics I. An introductory course in the principles and applications of classical and quantum statistical mechanics. Elementary kinetic theory of matter. Prerequisite: 340 and 430 or concurrent enrollment. Elective Pass/Fail.
450-1 Modern Physics Laboratory. Introduces students to experimental research and encourages them to develop and carry out experiments. Prerequisite: 205c, either of 350 or 351, or consent of instructor. Elective Pass/Fail.
460-8 (4, 4) Physical and Applied Acoustics. Coordinated lecture and laboratory study in acoustical phenomena. Topics include vibration analysis, wave mechanics, two and three dimensional propagation and applications in physics, materials science, engineering, architecture, music, and environmental science. Emphasis on laboratory and field techniques with modern computer analysis. Prerequisite: 301 or Mathematics 305 or concurrent enrollment. Elective Pass/Fail.
470-1 to 3 Special Projects. Each student chooses or is assigned a definite investigative project or topic. Prerequisite: 310, 320. Elective Pass/Fail.
480-3 Topics in Classical Physics. Assists experienced teachers to improve their understanding of classical physics and the strategy of presenting it. Emphasis on demonstration of phenomena as basic strategy in the introduction to new material. Attention given to the design of demonstration apparatus. Related laboratory experience is an integral part of the course. Prerequisite: consent of department. Elective Pass/Fail.
481-3 Topics in Modern Physics. Assists experienced teachers to extend their understanding of modern physics. Lectures and demonstrations aim at improvement of the means of presenting the ideas of modern physics. Related laboratory experience is an integral part of this course. Prerequisite: consent of department. Elective Pass/Fail.
482-2 (1, 1) In-Service Institute for Teachers of Physics. A series of lectures, demonstrations, discussions, and films to assist teachers of high school physics in meeting their classroom problems and responsibilities. Prerequisite: consent of department. Elective Pass/Fail.
500-6 (3, 3) Mathematical Methods in Physics.
510-4 Classical Mechanics.
511-3 Mechanics of Deformable Bodies and Fluids.
520-7 (4, 3) Electromagnetic Theory.
530-6 (3, 3) Quantum Mechanics II.
531-6 (3, 3) Advanced Quantum Mechanics.
535-6 (3, 3) Atomic and Molecular Physics II.
545-6 (3, 3) Statistical Mechanics II.
560-6 (3, 3) Nuclear Physics II.
565-6 (3, 3) Solid State Physics II.
570-1 to 4 Special Projects in Physics.
571-6 (3, 3) X-Ray Diffraction and the Solid State.
575-2 to 4 Selected Topics in Physics.
581-1 to 3 Graduate Seminar.
599-1 to 6 Thesis.
601-1 to 12 per semester Continuing Research.

Physiology (Department, Major, Courses)

The Department of Physiology offers training in mammalian physiology, cellular and comparative physiology, pharmacology, biophysics, and human anatomy. The undergraduate major in physiology provides general rather than specialized training in physiology. To become a professional physiologist usually requires the completion of an advanced degree in the field. An undergraduate major in physiology would provide an excellent foundation for those planning a career in teaching or research as well as for those planning a career in a medical field such as medicine, dentistry, veterinary science, nursing, or medical technology. Students considering a major in physiology are urged to consult with the undergraduate adviser of the Department of Physiology.

Bachelor of Arts Degree, College of Science

General Studies Requirements		45
College of Science Requirements		5
Foreign Languages	(4) + 4	
Mathematics 110a, b or 111 (or equivalent), or 140	(4) + 1	
Requirements for Major in Physiology		57
Physiology Courses	24	
Physiology 410a,b	10	
Physiology electives	14	
To be chosen from courses offered in the Department of Physiology, except 258 and 259.		
Physical Sciences	27	
Chemistry 222a,b 344, 345, 346, 347	19	
Physics 203a,b and 253a,b	8	
Biological Sciences	6	
Two from Biology 305, 307, 308, and 309		
Electives		13
Total		120

Minor

A minor in physiology requires a minimum of 16 hours of course work, 10 hours of which must be selected from the courses offered in the Department of Physiology, except 258 and 259. The remaining course work may be derived from closely related areas with prior approval of the department.

Junior-Senior Honors Program

Juniors who have shown outstanding ability in biology courses and related subjects in their freshman and sophomore years may apply for acceptance into the honors program. Honors students do independent study in the physiological sciences (Physiology 491) during their junior and senior years.

Courses

210-5 Introductory Human Physiology. Beginning course in human physiology designed for majors in physiology and other biological sciences, and recommended to premedical and other students considering biological sciences and health professions. Three lectures per week, one hour discussion and one two-hour laboratory. Prerequisite: one year of biological science and a reasonable knowledge of chemistry.

211-3 Principles of Laboratory Animal Use in Teaching and Research. An introductory course designed for physiology and other life science majors and students in related fields. Basic principles and practices of laboratory animal medicine including health care, nutrition, reproduction, and procedural methods of animals used in life science education and research and an understanding of the laws and regulations governing the use of laboratory animals.

258-2 to 8 Work Experience Credit. Under special circumstances, practical experience in laboratories or other work directly related to physiology can be used as a basis for granting credit in physiology. Credit for past work experience is sought by petition to the chairperson of the department and requires approval of the dean of the College of Science. Credit for on-going work experiences requires approval by the chairperson of the department prior to enrollment.

259-2 to 8 Occupational Education Credit. Under special circumstances, advanced training in a paramedical or other field directly related to physiology can be used as a basis for granting credit in physiology. Such credit is sought by petition to the chairperson of the department and requires approval of the dean of the College of Science.

300-3 Human Anatomy. Lectures, demonstrations, and observations of the prosected body. Course primarily for students of physical education, with emphasis on musculoskeletal and nervous systems. Three lecture hours per week. Not open to students who have taken 301.

301-4 Survey of Human Anatomy. Lectures, demonstrations, and observations of the prosected body, plus experiences in the anatomy laboratory. Course is designed for

students in nursing; mortuary science, biological science, and related disciplines. Three lectures hours and one two-hour laboratory per week. Not open to students who have taken 300.

401-10 (5, 5) Advanced Human Anatomy. Dissection of the human body. Primarily for students with a major in physiology or other biological sciences. Two hours lecture, six hours laboratory per week. Prerequisite: due to limited facilities, permission of the instructor is required.

402-5 (3, 2) Concepts of Anatomy. A detailed survey of human anatomy for preprofessional students with an interest in the biomedical disciplines, including radiographic, cross-sectional, and histological correlates. Three lectures per week fall semester, two lectures per week spring semester. Should be taken in a,b sequence. Not open to students who have had 401. Prerequisite: senior standing or consent of instructor.

410-10 (5, 5) Mammalian Physiology. Physical and chemical organization and function in mammals, with emphasis on the human. Physiology of blood and circulation, respiration, digestion, metabolism, excretion, endocrines, sensory organs, nervous system, muscle. Primary course for all students majoring in physiology or related sciences. Three lectures and two two-hour laboratory sessions per week. May be taken in any sequence. Prerequisite: college level chemistry and physics and at least junior standing.

411-4 (2, 2) Experimental Animal Surgery. **(a)** Covers animal care and preparation, anesthesia, etc.; one lecture and one two-hour laboratory per week. **(b)** Provides training and practice in surgical procedures. Two two-hour laboratories per week. Must be taken in a,b sequence.

420-6 (3, 3) Principles of Pharmacology. Action of drugs and other chemical substances on the living organism; pharmacodynamics, chemotherapy, toxicology, and therapeutics. Pharmacologic action of analgesics, emetics and antimetics; pharmacology of the nervous system; pharmacology of the muscles; antihistaminics; drugs that affect the eye; drugs that combat infectious diseases. Two lectures and one two-hour laboratory per week. May be taken in any sequence. Prerequisite: organic chemistry and basic courses in biology, or consent of instructor.

430-4 (2, 2) Cellular Physiology. The nature and mechanisms of function of the living cell. Chemical and physical analysis of function at the cellular level. Two lectures per week. Prerequisite: organic chemistry.

433-4 Comparative Physiology. Variations of physiological processes in animal phyla, and comparison of these with human physiology. Three lectures and one discussion period per week. Prerequisite: one year of biological science.

440-6 (3, 3) Biophysics. **(a)** Biomathematics, biomechanics and biotransport. **(b)** Bioelectrics and bio-optics applied to physiological problems. Three lectures per week. Prerequisite: Mathematics 141 or equivalent; one year of college biological science including Physiology 210 or its equivalent; one year of college physics. May be taken in b,a sequence with consent of instructor.

460-2 Electron Microscopy. Lecture course designed to introduce the student to the theory and principles of electron microscopy. Two lecture hours per week. Prerequisite: senior standing or permission of instructor.

461-3 Biomedical Electronics. Practical experience with modern electronic circuits and devices used for biomedical purposes, with circuit construction and troubleshooting practice. Two lectures and one two-hour laboratory per week. Prerequisite: consent of instructor.

491-3 to 8 Independent Research for Honors. Supervised readings and laboratory research in physiology directed by a member of the physiology faculty. Undergraduate honors students only. By special arrangement with the instructor in the physiology department with whom the student wishes to work.

492-1 to 3 Special Problems in Physiology. Supervised readings and laboratory research in physiology directed by a member of the physiology faculty. Open to undergraduate students only. By special arrangement with the instructor in the physiology department with whom the student wishes to work.

500-1 to 6 (1 per semester) Advanced Seminar in Physiology.

520-3 Advanced Endrocrinology.

530-3 Advanced Cellular Physiology.

531-2 Advanced Cellular Physiology Laboratory.

533-4 Advanced Comparative Physiology.

540-3 Advanced Biophysics.

560-4 (2, 2) Physiological Techniques.

570-3 to 48 Advanced Physiological Topics.

590-1 to 4 Readings or Research in Current Physiological Topics.

599-1 to 6 Thesis Research.

600-1 to 32 Dissertation Research.

601-1 to 12 per semester Continuing Research.

Plant and Soil Science (Department, Major, Courses)

The Department of Plant and Soil Science includes crop production, horticulture, and soils. There are many widely varied opportunities for students with an interest in plants or soils. Students may choose a general option within the department and select most of their upper division credits from a wide choice of electives throughout the School of Agriculture and the University. If interests are more specialized, students may elect the science option and specialize in one particular area, or may elect a specialization which will combine a broad background in plants and soils with selected business courses and business related electives. A specialization in environmental studies would familiarize the student with environmental problems relating to plants and soils.

Students selecting the landscape horticulture specialization can prepare for interesting careers in landscaping or gardening in parks, playgrounds, residential or industrial areas, road and street parkway improvement and maintenance, and in other public and private work to make the environment more pleasing and useful.

Opportunities for individual program development within the various options may be realized through work experience, internships, special studies, and seminars; however, no more than 30 hours of such unstructured coursework may be counted toward the degree. Students in all specializations are urged to make use of them to meet the goals and needs of their respective programs.

Students in all specializations must complete the plant and soil science core courses. These courses are 200, 220, 240, and one hour of 381.

There may be extra expenses for field trips, manuals, or supplies in some courses.

Bachelor of Science Degree, School of Agriculture

	SPECIALIZATIONS		
	General	Science	Business
General Studies Requirements	48	49	48
Physics 203a or physics substitute[1]	—	3	—
Chemistry 140a substituted for GSA 106-3	4	—	4
Chemistry 222a	—	4	—
Botany 200 and 201 substituted for GSA 115-3	4	4	4
Agribusiness Economics 204 substituted for GSB 211	3	3	3
GSB 202	—	—	3
GSD 101	3	3	3
GSD 107	4	—	4
GSD 117 or 118[2]	2	2	2
GSD 153	3	3	3
Mathematics 110 or 111	—	5	—
Requirements for Major in Plant and Soil Science	53	64	64
Courses in two other departments in agriculture	6	6	6
Botany 320	4	4	4
Chemistry 140b	4	—	4
Chemistry 222b, 340, and 341	—	10	—
Physics 203b	—	3	—

Plant and Soil Science 200, 220, 240, 381-1	11	11	11
Other Plant and Soil Science courses[3]	17	17	17
Other Agriculture electives	11	6	6
Mathematics, physical sciences, or biological sciences	—	7	—
Accounting 210, Administrative Sciences 301 or 304, Marketing 304, or Agribusiness Economics 360	—	—	9
Business electives and supporting courses	—	—	7
Electives	19	7	8
Total	120	120	120

[1]Physics 205a may be substituted.
[2]GSD 118 is highly preferred.
[3]Plant and soil science electives must include 15 hours of structured coursework at the 300 or 400-level, with no less than 9 hours at the 400-level.

PLANT AND SOIL SCIENCE MAJOR — LANDSCAPE HORTICULTURE SPECIALIZATION

General Studies Requirements	48
Chemistry 140a substituted for GSA 106-3	4
Botany 200 and 201 substituted for GSA 115-3	4
Agribusiness Economics 204 substituted for GSB 211	3
GSD 101	3
GSD 107	4
GSD 117 or 118[1]	2
GSD 153	3
Requirements for Major in Plant and Soil Science with a Specialization in Landscape Horticulture	62-64
Agricultural Education and Mechanization 376	2
Biology 307	3
Botany 320 and 456 or 457	7-8
Chemistry 140b	4
Geography 470a	3
Plant and Soil Science 200, 220, 240, 322, 327, 328a,b, 381-1, 428a,b, 432 or 434	30-31
Agriculture electives	10
Zoology 316	3
Electives	8-10
Total	120

[1]GSD 118 highly preferred.

PLANT AND SOIL SCIENCE MAJOR — ENVIRONMENTAL STUDIES SPECIALIZATION

General Studies Requirement	49
Chemistry 224 or chemistry substitute[1]	5
Botany 200 and 201 substituted for GSA 115-3	4
GSA 330	3
Agribusiness Economics 204 substituted for GSB 211	3
GSB 212, 220	7
GSC 221	3
GSD 101	3
GSD 118	2
GSD 153	3
GSD 107	4
Requirements for Major in Plant and Soil Science with a Specialization in Environmental Studies	56

Agriculture 333	2
Animal Industries 455	2
Agribusiness Economics 401	3
Plant and Soil Science 200, 220, 240, 381-1, 419, 420, 441, 447, 468	27
Agriculture electives, Plant and Soil Science 328a and 346 highly recommended	9
Thermal and Environmental Engineering 314	4
Political Science 325	3
Chemistry 225[1]	2
Botany 320	4
Electives	15
Total	120

[1]Chemistry, 222a, b may be substituted.

Minor

A minor in plant and soil science is available to those interested in field crop production, horticulture, or soils. A total of 16 hours within the department is required. Of the required hours, one course must be selected from 200, 220, or 240. An adviser within the department must be consulted before selecting this field as a minor.

Courses

100-2 Plants for Society. How plants have affected the development and culture of society. Interrelationship between plants and people. Importance of plants for beauty, food, fiber, medicine, and drugs. Not applicable to a major or minor in plant and soil science, but may be used as agriculture elective. Elective Pass/Fail.

140-2 Soils for Society. The importance of soil in everyday life. Soil as a medium for plants grown for food, fiber and leisure. The importance of soil in reducing harmful chemicals and wastes and improving our environment. Not applicable to a major or minor in plant and soil science, but may be used as agriculture elective. Elective Pass/Fail.

200-3 Principles of Field Crop Production. Production of important field crops of the world with greatest emphasis on U.S. and midwestern field crops; crop production changes and adjustments, crop distribution over U.S., and crop groups and classifications, special agronomic problems, crop enemies, crop ecology, fertilizer and liming practices, tillage, crop improvement through breeding. Field trip (no cost).

220-3 General Horticulture. General principles of plant propagation, vegetable growing, fruit growing, landscape gardening, and floriculture. Seniors cannot enroll without consent of instructor. Prerequisite: Botany 200 or equivalent.

225-2 Genetics for the Amateur Gardener. An introduction to the essential principles of genetics and plant hybridization utilizing common garden and house plants.

228-2 Floral Arrangements. Theory and practice in the art of flower and plant arrangement for the home, show, and special occasions. History, elements, and principles of design and use of color.

238-2 Home Gardening. Vegetable gardening techniques for the home gardener. Both inorganic and organic methods are used together with the latest recommended varieties for the small garden.

240-4 Soil Science. (Same as Forestry 240.) Basic and applied chemical, physical, and biological concepts in soils. The origin, classification and distribution of soils and their relationship to humans and plant growth. Prerequisite: Chemistry 140b or equivalent; geology suggested.

257-1 to 10 Work Experience. Credit for on-campus work experience in the areas of plant and soil science, or credit through a cooperative program developed between the department and the Office of Student Work and Financial Assistance. Credit awarded based on 4 hours of work per week during the semester for each hour of credit. Prerequisite: consent of instructor. Mandatory Pass/Fail.

258-1 to 30 Prior Work Experience. Credit for work experience prior to University entrance in the areas of plant and soil science. Credit awarded based on 7.5 hours credit per year of career related full-time employment. Proportionately lesser amounts of credit authorized for shorter employment period. No grade for prior work experience. Prerequisite: consent of chairperson.

300-5 (2, 3) Field Crop Production. Principles of growth and production of field crops and their utilization. **(a)** Primarily corn and soybeans. **(b)** Small grains primarily wheat and

grain sorghum with laboratory demonstrating principles discussed in both **a** and **b** including research projects, and grading and utilization of grain. Laboratory field trips, approximately $5. Prerequisite: an introductory crops course or consent of instructor. Elective Pass/Fail.

305-4 Plant Genetics. Principles of genetics and evolution of plants, elementary plant breeding, and the interaction between plant breeding and industry. Prerequisite: a course in biology or botany. Elective Pass/Fail.

310-3 Morphology of Crop Plants. Cellular structure, vegetative and reproductive development, and grass morphology of major crop plants. Utilization of crop plant parts. Prerequisite: one course in introductory biology or equivalent. Elective Pass/Fail.

322-3 Turfgrass Management. Principles and methods of establishing and maintaining turfgrass for lawns, recreational areas, and public grounds. Identification of basic plant and soil materials and management of turfgrasses in variable environments. Prerequisite: a biology course.

325-3 Garden Flowers. Culture, identification, and use of flowering bulbs, annuals, biennials, and perennials in the home flower garden. Prerequisite: an introductory course in biology or consent of instructor. Elective Pass/Fail.

327-3 Landscape Plant Materials. Identification, usage and adaptability to the landscape of woody (deciduous and evergreen) and ornamental shrubs, trees and vines. Use of plant keys. Prerequisite: an introductory botany course or consent of instructor.

328-4 (2, 2) Appreciation of Landscape Design. **(a)** Introduction to theory and principles of landscape design as applied to the modern home. Property selection and climate control. **(b)** Laboratory. Practical application in modern methods of property planning including the individual components of the completed landscape plan and selection of plants. Prerequisite: 327 or equivalent, and a course in drafting.

338-3 Flower Shop Management. Requirements for establishing and operating a retail flower shop. Business management, floral design, and marketing. Prerequisite: 228, a course in economics, or consent of instructor.

346-2 Soil and Water Conservation. How soil erosion occurs, evaluation of the various factors affecting it, its effects on humans, food production and pollution; and practical means of control. Prerequisite: a course in soils suggested.

347-1 Laboratory Practices in Soil and Water Conservation. Effects of soil properties and rainfall characteristics on erodibility of soils. Laboratory work in land surveying, relief mapping and a study of structures related to soil and water conservation.

359-1 to 6 Intern Program. Supervised work experience program in either an agricultural agency of the government or agri-business. Prerequisite: junior standing and approval of department. Mandatory Pass/Fail.

380-4 (2, 1, 1) Plant and Soil Evaluations. **(a)** Grain grading to include crop and weed identification and seed identification and analysis. **(b)** Comparative evaluation and judging of horticultural crops to include flowers, fruits, vegetables, woody ornamentals. Field trip costing approximately $25. **(c)** Soil evaluation to include identification of genetic horizons, their physical characteristics and classification. Field trips (no cost). These courses are not required for participation in SIU judging team activities. Elective Pass/Fail.

381-1 to 2 (1, 1) Plant and Soil Science Seminar. Discussion of special topics and/or problems in the various areas of plant and soil science. Prerequisite: GSD 153 and junior standing.

390-1 to 4 Special Studies in Plant and Soil Science. Assignments involving research and individual problems. Prerequisite: consent of department chairperson.

391-1 to 4 Honors in Plant and Soil Science. Independent undergraduate research sufficiently important to three hours per week of productive effort for each credit hour. Prerequisite: junior standing, GPA of 3.0 with a 3.25 in the major, and consent of department chairperson.

400-2 Trends in Agronomy. A discussion session format will be employed as a means of acquainting students with recent literature and allowing them to remain current with latest developments in their area of specialty. Prerequisite: senior standing.

405-3 Plant Breeding. Principles of plant breeding emphasized together with their application to the practical breeding of agronomic, horticultural, and forest plants. Field trip costs approximately $10. Prerequisite: 305 or equivalent. Elective Pass/Fail.

408-3 World Crop Production Problems. Ecological and physiological factors influencing production in various areas of the world. Natural limitations on world crop production. Non-agricultural factors influence world crop output. Prerequisite: 200. Elective Pass/Fail.

409-3 Crop Physiology and Ecology. The effects and significance of physiological and ecological parameters on crop yields. Prerequisite: Botany 320 or consent of instructor.

419-3 Forage Crop Management. Forage crop production and utilization; forage crop characteristics, breeding, and ecology; grasslands as related to animal production, soil conservation, crop rotation, and land use. Field trip costs approximately $5.00. Prerequisite: Botany 200 or one course in biology or equivalent.

420-4 Crop Pest Control. Study of field pests of forest; orchard, field, and garden crops; pest control principles and methods; control strategy; and consequences of pest control

operations. Prerequisite: introductory biology or crop science course and/or consent of department.

422-3 Turfgrass Science. Basic concepts of physiology, growth, and nutrition of turfgrasses and their culture. Application of turfgrass science to management of special turf areas such as golf courses, athletic fields, and sod farms; and to the turfgrass industry. Field trips cost approximately $15. Prerequisite: 240 and 322 or equivalent or consent of instructor.

423-3 Greenhouse Management. Principles of greenhouse management controlling environmental factors influencing plant growth; greenhouses and related structures; and greenhouse heating and cooling systems. Field trips costing approximately $5. Prerequisite: 220 or consent of instructor.

424-3 Floriculture. Production, timing, and marketing of the major floricultural crops grown in the commercial greenhouse. Each student will have an assigned project. Field trip costing approximately $25. Prerequisite: 423 or consent of instructor.

428-6 (3, 3) Advanced Landscape Design. Theory and principles of residential landscape design. Practice in drawing residential landscape plans. **(a)** Emphasis on arrangement of unit areas. **(b)** Emphasis on details of design and selection of plants. Prerequisite: 328-4 or consent of instructor.

430-4 Plant Propagation. Fundamental principles of asexual and sexual propagation of horticultural plants. Actual work with seeds, cuttings, grafts, and other methods of propagaton. Field trip costing approximately $5. Prerequisite: 220.

432-4 Nursery Management. Principles and practices involved in the propagation, production, and marketing of ornamental landscape plant materials. Emphasis on plant production with field trips to various production areas costing approximately $40. Prerequisite: 220 and 327a, or consent of instructor.

434-3 Woody Plant Maintenance. Care and management of ornamental shrubs and trees commonly used in the landscape. Topics to include trimming, pruning, fertilization, transplanting, and diagnosis of woody plant problems. Prerequisite: 327 or Forestry 201 and 202 or consent of instructor.

436-4 Fruit Production. Deciduous tree and small fruit growing, physiology, management practices, marketing. Prerequisite: 220 or consent of instructor.

437-4 Vegetable Production. Culture, harvesting, and marketing of vegetables; with morphological and physiological factors as they influence the crops. Field trip costing approximately $5. Prerequisite: 220 or consent of department.

441-3 Soil Morphology and Classification. Development, characteristics, and identification of soils; study of profiles; and interpretation and utilization of soil survey information in land use planning. Field trip costing approximately $5. Prerequisite: 240 or consent of instructor.

442-3 Soil Physics. A study of the physical properties of soils with special emphasis on soil and water relationships, soil productivity, and methods of physical analysis. Prerequisite: 240.

443-3 Soil Management. The soil as a substrate for plant growth. Properties of the soil important in supplying the necessary mineral nutrients, water and oxygen and for providing an environment conducive to plant root system elaboration. Soil management techniques that are important in optimizing plant growth. Prerequisite: 240. Elective Pass/Fail.

447-3 Fertilizers and Soil Fertility. Recent trends in fertilizer use and the implications of soil fertility build up to sufficiency and/or toxicity levels; the behavior of fertilizer material in soils and factors important in ultimate plant uptake of the nutrients; the plant-essential elements in soils and ways of assessing their needs and additions; tailoring fertilizer for different uses and management systems; implication of excessive fertilization in our environment. Prerequisite: 240; concurrent enrollment in 448 suggested. Elective Pass/Fail.

448-2 Soil Fertility Evaluation. A laboratory course designed to acquaint one with practical soil testing and plant analysis methods useful in evaluating soil fertility and plant needs. One hour lecture, two hours laboratory. Prerequisite: 240; 447 or concurrent enrollment; or consent of instructor.

454-4 Microbial Processes in Soils. A study of microbial numbers, characteristics and biochemical activities of soil microorganisms with emphasis on transformations of organic matter, minerals, and nitrogen in soil. Prerequisite: 240 or Microbiology 301; or permission of instructor.

460-3 Radioisotopes, Principles and Practices. Lectures on the principles of radioisotope technology as applied to agricultural and biological sciences. Prerequisite: general chemistry and biochemistry or equivalent.

468-3 Weeds — Their Control. Losses due to weeds, weed identification and distribution, methods of weed dissemination and reproduction, mechanical, biological, and chemical control of weeds. State and Federal legislation pertaining to weed control herbicides. Herbicide commercialization. Field Trips costing approximately $5. Prerequisite: an introductory biology course. Elective Pass/Fail.

518-3 Principles of Herbicide Action.

520-3 Growth and Development of Plants.

524-2 Advanced Plant Genetics.
547-2 Soil-Plant Nutrient Relationships.
560-5 (3, 2) Field Plot Technique.
581-1 to 4 (1, 1, 1, 1) Seminar.
582-6 (2, 2, 2) Colloquium in Plant and Soil Science.
588-1 to 8 International Graduate Studies.
590-1 to 4 Readings.
592-1 to 3 Special Problems.
593-1 to 4 Individual Research.
599-1 to 6 Thesis.
601-1 to 12 per semester Continuing Research.

Political Science (Department, Major, Courses)

The study of political science is concerned with predicting, explaining, and evaluating the political behavior, beliefs, laws, and organizational arrangements of people in a variety of settings. A major in political science provides rigorous social science training. A variety of courses afford a student an opportunity to study, in depth, individual and group behavior, political, administrative, and judicial processes, comparative national and subnational governmental systems, intergovernmental relations and conflict resolution, and normative and empirical political theory. The student who is interested in the public sector will find discussions of such topics as voting behavior, American foreign policy, and the decisions and opinions of Supreme Court justices to be challenging experiences.

A major in political science provides excellent training for the public service, scientific polling and political analysis, management training programs, and teaching, particularly at the secondary level. A political science major also provides an excellent foundation for professional graduate training in law, journalism, public administration or public affairs, as well as for graduate work in political science which is essential for a career in higher education. For the non-vocationally oriented student, political science is an excellent major for anyone with a keen interest in politics and public affairs.

A student planning to major in political science should consult with the academic adviser of the department as early as possible in order to plan an orderly and coherent program. All members of the department are available for consultation on their academic specialties.

Students majoring in political science must take GSB 212. Political Science 200, 213, GSB 250, GSB 270, and GSB 378 are background courses for many advanced courses in the department. In fulfilling General Studies requirements or in choosing electives, political science majors should select courses from economics, psychology, sociology, anthropology, geography, and history. Mathematical or statistical training is highly recommended because of the emphasis on empirical research and analysis in political science. Such training will also enhance vocational opportunities. Depending on special interest, a student should also consider courses in foreign languages or computer programming. Such courses are particularly important for the student who is planning to enter graduate school.

Qualified students are encouraged to inquire about individualized courses of study such as Political Science 390, 395, and 494. The interested student should contact the academic adviser of the department or a member of the faculty.

At least seventeen hours in political science courses must be earned at senior level institutions.

Courses taken as Pass/Fail will not be counted as fulfilling the requirements for a major in Political Science.

Bachelor of Arts, College of Liberal Arts

General Studies Requirements 45

Supplementary College Requirements (See page 84.) ..... (4) + 8-14
Requirements for Major in Political Science 34
GSB 212, or equivalent
Additionally, political science electives, including 200 and 300 GSB courses offered by the department, to total 34 hours. Courses shall be distributed so that a minimum of one course is taken in 5 of the following 6 areas: scope, methods, and political theory; American politics; public law; public administration; comparative politics; and international relations. GSB 212 does not satisfy an area requirement. A minimum of three of the electives must be taken at the 400 level.
Electives 27-33
Total 120

Bachelor of Science Degree, College of Education

A major in political science for education requires 34 credit hours of work in the department. This work must be distributed among the subfields of the discipline in the same manner as the 34-hour requirement described above for the Bachelor of Arts degree.

Every student enrolled in this program should seek regular advisement in the Department of Political Science to insure that department requirements will be fulfilled.

Students obtaining a Bachelor of Science degree in the College of Education must satisfy all requirements of that college. See Teacher Education Program, page 77. Professional education and other certification requirements may be found in the section of this catalog titled Curriculum, Instruction, and Media. All students enrolled in a teacher education program are required to take a special methods course. Since there is no methods course in political science, Curriculum, Instruction, and Media 469 is a required course for all students in this program. The course should be completed before student teaching. A student enrolled in the teacher education program is required to have a 2.50 grade point average in political science in order to be recommended for student teaching by the department.

Minor

A minor in political science consists of 16 hours to be approved by the department adviser.[1]

Courses

The numbers preceding the following course titles have been designed to group courses by subject matter as well as level. A summary explaining the numbering system follows:

COURSE	LAST TWO DIGITS OF COURSE NUMBER
Scope, Methods, and Political Theory	00-09
American Politics	10-29
Public Law	30-39
Public Administration	40-49
Comparative Politics	50-69
International Relations	70-89
Miscellaneous	90-99

Courses

200-3 Introduction to the Discipline of Political Science: Scope. Examination of the philosophy, methodology, theories, approaches and relevant generalizations of the study

[1]Students completing a minor in political science for purposes of obtaining teacher certification in the State of Illinois must complete a minimum of 18 semester hours in the minor area.

of politics and of the scope and subfields of political science. Not open to seniors without instructor's consent. Elective Pass/Fail.

213-3 State and Local Government. Structure, functions, and decision-making processes of subnational governments in the United States. Prerequisite: GSB 212. Elective Pass/Fail.

214-3 Illinois Government. The politics, structure, and function of state and local governments in Illinois with stress upon the historical development of the political culture, current issues and events in the light of the historical background, and the interrelationship of politics, structure, and policy. Prerequisite: 213 or sophomore standing. Elective Pass/Fail.

300-3 Introduction to the Discipline of Political Science: Methods. An examination of the research methods and data analysis techniques used by political scientists in their analysis of political questions and problems. Prerequisite: None, 200 recommended. Elective Pass/Fail.

303-3 Introduction to Political Theory. Normative and testable theories in political science are introduced and interrelated. Guidelines for applying those theories to empirical and ethical problems are discussed. Prerequisite: 200 recommended. Elective Pass/Fail.

316-3 Political Socialization. (Same as Sociology 316.) An inquiry into interdisciplinary empirical theory and research on political learning relevant to (1) who (2) learns what (3) from whom (4) under what circumstances (5) with what effects. Prerequisite: 200 or GSB 212 or instructor's consent. Elective Pass/Fail.

317-3 Public Opinion and Electoral Behavior. The nature and function of public opinion as it is related to electoral behavior. Additional sociological and psychological bases of voting behavior will be studied. Prerequisite: None; 200 recommended. Elective Pass/Fail.

318-3 Political Campaigns and Elections. (Same as Speech Communication 318.) Analysis of modern political campaigns and the role they play in a democracy. Emphasis will be on recent developments in the planning and execution of campaigns by mass media and communication specialists and the role of the political parties and the public opinion polls in this process. Prerequisite: GSB 212. Elective Pass/Fail.

319-3 Political Parties. Nature, structure, and functions of political parties, with particular attention to the roles and activities of political parties in the United States. Attention also given to voting behavior and elections. Prerequisite: GSB 212. Elective Pass/Fail.

321-3 The Legislative Process. A comparative analysis of legislatures and legislative behavior. Emphasis is on the United States Congress. Prerequisite: GSB 212. Elective Pass/Fail.

324-3 Politics and Public Policy. The public policy-making process in the United States evaluated and a wide range of public policy programs analyzed. Prerequisite: GSB 212. Elective Pass/Fail.

325-3 Politics and Environmental Policy. Prompted by the conservation lobbies, United States and state legislatures moved to preserve the biosphere and to create a healthier human environment. The course will cover the traditional common law remedies to protect the citizens and their property from the hazards of pollution and new broader constitutional and/or statutory right to a clean, healthy, and pleasant environment. Prerequisite: None; GSA/B 220 or GSA/B/C 221 or Political Science 340 recommended. Elective Pass/Fail.

328-3 Field Research in Public Policy. Students study public policy of their choice, individually or in teams, using field research techniques such as interviewing, direct observation, and inspection of public records. The policy studied is then evaluated in light of student-developed concepts of the public interest. Prerequisite: GSB 212. Elective Pass/Fail.

330-3 Introduction to the Legal Process. The legal process in operation, including basic procedural elements, and a sampling of the law of manufacturing liability, contract law, and labor law. Recommended for pre-law. Prerequisite: GSB 212. Elective Pass/Fail.

332-3 Law and Politics of Civil Rights. Course focuses on civil rights (e.g. voting, housing, employment, education) in terms of congressional statutes, the judicial rulings which led up to them, the administrative development and judicial interpretation of the statutes. Prerequisite: GSB 212 recommended. Elective Pass/Fail.

334-3 Administration of Justice. The organization and work of the American judicial system. Recommended for pre-law students. Prerequisite: GSB 212. Elective Pass/Fail.

340-3 Introduction to Public Administration. An introduction to the study of public bureaucracy. Theoretical, political, and practical issues of organization, staffing, financing, and other matters are surveyed. United States administration and organizational behavior are stressed. Prerequisite: GSB 212. Elective Pass/Fail.

353-3 Comparative Communist Systems. General introduction to the political systems of communist states with special emphasis on Eastern Europe. Attention given to the role of ideology, the character and role of the party, and major decision making structures and processes. Elective Pass/Fail.

366-3 Introduction to Latin American Government and Politics. A general introduction to Latin American government as the institutionalized political expression of Latin American civilization and culture. Does not require a reading knowledge of Spanish or Portuguese. Elective Pass/Fail.

371-3 International Political Economy. Political dynamics of international trade, finance, investment, multinational corporations, energy, development, world wealth distribution, technology transfers. Politics of economic relations between East and West, rich and poor. Assumes that the political system shapes the economic system, that political concerns often shape economic policy, and that international economic relations are political relations. Prerequisites: none; GSB 270 or economics course recommended.
373-3 International and Transnational Organizations. The growth and role of international organizations, with special attention to the political effects of military, economic and ecological interdependence. The United Nations, regional organizations, and nongovernmental organizations. The effects of these organizations on international peace and justice. Prerequisite: none; GSB 270 recommended. Elective Pass/Fail.
382-3 The New Politics of Europe. International politics of Europe. Comparative analysis of the foreign policies of the major states. Topics studied include nationalism, unification, and security, western Europe's relations with the developing world, Eastern Europe, the USSR, and the U.S. Elective Pass/Fail.
383-3 International Relations of Communist States. History and analysis of the foreign policies principally of the Soviet Union and China, with some attention to Eastern Europe, North Korea, Vietnam, and Cuba. Prerequisite: 353 or GSB 250 or consent of instructor. Elective Pass/Fail.
390-1 to 6 Readings in Political Science. In-depth, introductory and advanced readings in areas not currently covered in other political science courses. Student must choose a faculty member to direct reading and must obtain consent prior to registration. Name of faculty member must be filed with the undergraduate adviser of the department at registration. Prerequisite: consent of instructor prior to registration.
395-1 to 12 Internship in Public Affairs. Supervised field work in the office of a governmental agency, political party, interest group, legal agency, or other public affairs-oriented organization. A faculty-supervised paper is required in which the student relates the academic and internship experiences. Students must choose a faculty member to direct intenship and obtain consent prior to registration. Name of faculty member must be filed with undergraduate adviser of the department at registration. This course is open only to students registered in the College of Liberal Arts or the College of Education. Students must be confirmed political science majors or minors who have taken at least two courses in the department with a minimum grade point average of 2.5. No more than six hours may be counted toward a departmental major. A written description identifying the specific organization, the projected tasks, and responsibilities of the intern should be prepared prior to meeting with the faculty sponsor.
403-4 Philosophy of Politics. (See Philosophy 441.) Elective Pass/Fail.
404-3 History of Political Theory. Shall survey different theorists and perspectives which have contributed significantly to the development of the ongoing tradition of political theory up to modern times. Prerequisite: 303 or consent of instructor. Elective Pass/Fail.
405-3 Democratic Theory. An examination of various species and aspects of democratic thought, including the liberal tradition and its impact upon the United States. Prerequisite: GSB 212 or consent of instructor. Elective Pass/Fail.
406-3 Socialist Thought. An examination of socialist thought regarding social structure, economic institutions, and political power. Prerequisite: senior or graduate standing or consent of instructor. Elective Pass/Fail.
408-3 Contemporary Political Theory. Shall explore the theorists and perspectives which have contributed to contemporary views of the political world. Prerequisite: 303 or consent of instructor. Elective Pass/Fail.
413-3 Modern Federalism. The structure and function of federal systems of government with emphasis on recent revisions in American federalism and comparison of the American federal structure with federalism in other nations. Elective Pass/Fail.
414-3 Political Systems of the American States. The state level of government viewed with emphasis upon recent developments and current research. Prerequisite: 213. Elective Pass/Fail.
415-3 Urban Politics. An examination of the environment, institutions, processes, and functions of government in an urban society with particular emphasis on current problems of social control and the provision of services in the cities of the U.S. Prerequisite: 213. Elective Pass/Fail.
416-3 Senior Seminar in Politics. Seminar for advanced undergraduate students to examine in depth a wide variety of topics; to be taught by different instructors. Available for use as the honors seminar. Graduate students not admitted. Prerequisite: 200 recommended. Elective Pass/Fail.
417-3 Political Psychology. An examination of various psychological theories as they relate to the development and change of political attitudes, leadership behavior, and mass political participation. Prerequisite: 200 recommended. Elective Pass/Fail.
418-3 Political Communications. (See Speech Communication 451.) Elective Pass/Fail.
419-4 Political Sociology. (See Sociology 475.)

422-3 American Chief Executive. The origin and background of the presidency and the governorship, qualifications, nomination and election, succession and removal, the organization of the executive branch, and the powers and functions of the president and governor. Prerequisite: GSB 212. Elective Pass/Fail.
426-3 Politics of Social Welfare. The Social Security Act and other legislation of major significance for the welfare and maintenance of the family, the handicapped, children, and other special groups. Their relationship to the legal structure of federal, state, county, township, and municipal welfare facilities and institutions with indications of economic and social consequences. Elective Pass/Fail.
428-3 Government and Labor. (See Economics 436.) Elective Pass/Fail.
429-3 Race, Ethnicity and Politics. (Same as Black American Studies 445.) An analysis of race and ethnicity as significant variables in political life. Topics receiving attention include various forms of political participation, leadership behaviors, organizational development, political strategies, and the effect of law in producing social change. Comparative cross-national emphases will vary with the instructor. Prerequisite: GSB 212. Elective Pass/Fail.
433-8 (4, 4) Constitutional Law. **(a)** This, the intitial course in a two-course sequence, will be concerned with the basic structure and power relationships in the American constitutional system and, in addition, will cover the 19th and early 20th century bulwarks of constitutional *laissez faire,* the contract clause and "substantive" due process. In brief, the course will cover judicial review, judicial restraint, separation of powers, the federal system, national powers, state powers, constitutional amendments, and restraints on economic powers, the contract clause and "substantive" due process. Prerequisite: GSB 212. Political Science 330 is recommended. Elective Pass/Fail. **(b)** This is the second course in the constitutional law sequence. The course will be wholly concerned with those provisions of the Constitution which protect individual rights and liberties against governmental encroachment. In brief, the course will cover constitutional provisions and case precedents relating to citizenship, freedom of speech, assembly, and association, freedom of religion, rights of persons accused of crime, protection against racial, ethnic, and other forms of discrimination, legislative apportionment and the electoral process. Prerequisite: GSB 212. Elective Pass/Fail.
435-3 Judicial Process. An examination of the process by which judges in both trial and appellate courts at federal and state levels are selected and of the ways in which they make decisions. Attention to the structure of the courts. Study of the communication and impact of judicial decisions. Prerequisite: either 330, 332, 433, or consent of instructor. Elective Pass/Fail.
436-3 Administrative Law. The procedural law of public agencies, particularly the regulatory commissions but also executive branch agencies exercising regulatory functions. The exercise of discretion and its control through internal mechanisms and judicial review. Prerequisite: an ability to read court cases; 340 also preferred. Elective Pass/Fail.
437-3 Jurisprudence (Theories of Law). Major schools in legal thinking. Positive law and natural law. Idea of justice and concept of natural rights. Elective Pass/Fail.
441-3 Organization Theory. Analysis of various approaches to organizational theory and public administration with emphasis on recent American literature in this field. Prerequisite: 340 or consent of instructor. Elective Pass/Fail.
442-3 Public Personnel Administration. An analysis of some of the central problems encountered by the government executive in recruiting, maintaining, and developing personnel, such as political neutrality, leadership and motivation, career development, security regulations, and the role of personnel in policy planning and execution. Prerequisite: 340. Elective Pass/Fail.
443-3 Public Financial Administration. An examination of state and local government financial administration. Patterns in revenues and expenditures and administrative processes and problems are emphasized. Some of the topics covered are: (1) interstate variations in expenditures, (2) the property tax, (3) grants-in-aid and revenue sharing, and (4) municipal debt. Students conduct individual research and participate in computer based exercises. Prerequisite: none. 213 recommended. Elective Pass/Fail.
444-3 Policy Analysis. An examination of basic concepts in the policy sciences, approaches to policy analysis, applications to selected areas of policy, and instruments of policy development. Elective Pass/Fail.
447-6 to 9 (3, 1 or 2, 2 to 4) Urban Planning. (See Geography 470a, b, c.) Elective Pass/Fail.
452-3 Politics of Developing Areas. A survey, theoretical and descriptive, of the impact upon politics of the process of development and the role of the governmental system in the direction and control of development. Elective Pass/Fail.
454-3 Comparative Urban Politics. Comparative analysis of urban political systems in the United States and other nations. Attention to the social environment, political structures, political processes, and public policies of selected urban areas. Prerequisite: none. 213 recommended. Elective Pass/Fail.
455-3 Comparative Public Administration. Administrative attitudes, behaviors, and institutions are compared on a topical basis in governments of Britain, Europe, the United States, Japan, and selected socialist, developing, and ancient states. Elective Pass/Fail.

457-3 Great Britain and the Commonwealth. The nature of the Commonwealth Association and the politics of Great Britain and the "Old Commonwealth" countries: Australia, Canada, New Zealand. Prerequisite: none. GSB 250 recommended. Elective Pass/Fail.
458-3 Governments and Politics of Europe. A comparative study of the political systems of the major countries of Western and Central Europe. Prerequisite: none. GSB 250 recommended. Elective Pass/Fail.
459-3 Government and Politics of Soviet Russia. Dynamics of Soviet government and economy. Prerequisite: none. GSB 250 recommended. Elective Pass/Fail.
461-3 Governments and Politics of Southeast Asia. Politics and governments of Burma, Thailand, Malaysia, Vietnam, Cambodia, Laos, Singapore, Indonesia, and the Philippines. Prerequisite: none. GSB 250 recommended. Elective Pass/Fail.
462-3 Governments and Politics of Vietnam. Development of political groupings since the period of French domination. Role of the religious sects and the private armies. Constitution and the legal and political system of Vietnam. Prerequisite: none. GSB 250 recommended. Elective Pass/Fail.
463-3 Government and Politics of China. Internal political, economic, and social development of China. Prerequisite: none. GSB 250 recommended. Elective Pass/Fail.
464-3 Governments and Politics in the Middle East. Internal and international politics of the Islamic states of the Middle East and North Africa and Israel. Prerequisite: none. GSB 250 recommended. Elective Pass/Fail.
465-3 Governments and Politics of Sub-Saharan Africa. (Same as Black American Studies 465.) An examination of the impact of western colonial rule on the societies and politics of Africa, the methods by which these colonial areas became sovereign states in the post-World War II era, the role of domestic political institutions, African political thought and behavior, and the development of foreign policies regarding relations with other African states, continental and international organizations, and non-African states. Prerequisite: 352 or GSB 250. Elective Pass/Fail.
466-4 Governments and Politics of Latin America. An in-depth analysis of specific problem areas in Latin American political processes as well as comparative study of selected Latin American nation-states. Prerequisite: none. 366 recommended. Elective Pass/Fail.
468-3 The Politics of National Defense. A comparative study of the growth of the relationship of the armed forces with the civilian sector of the body politic, the selection, training, and professionalization of the officer corps, the control of the armed forces by the executive and legislature, the growth of strategic doctrine, insurgency and counter-insurgency warfare, and the analysis of the role of the armed forces as a governing group in a large number of non-western states. Prerequisite: GSB 212 or 250 or Political Science 352. Elective Pass/Fail.
475-6 (3, 3) International Law. **(a)** Rules and practices governing the nations in their relations in peace and war. Prerequisite: none. GSB 270 recommended. **(b)** Investigation of special problems in international law. Prerequisite: 475a. Elective Pass/Fail.
477-3 The Making of American Foreign Policy. An advanced course dealing with the formulation and administration of American foreign policy. Prerequisite: none. GSB 378 recommended. Elective Pass/Fail.
480-3 International Politics. Definition and analysis of the concepts of spheres of hegemony, alliances, regionalism, integration, interdependence, and an evaluation of their application to contemporary international politics. The course will stress the need for the continuing evaluation of the vague role of national power and influence within the framework of a changing world environment. Elective Pass/Fail.
485-3 International Relations of the Far East. The political and strategic problems and the interplay of the foreign policies of the major powers in this area. Prerequisite: none. GSB 270 or History 380 recommended. Elective Pass/Fail.
488-3 International Relations of the Western Hemisphere. Emphasis on the international behavior of Latin American nation-states and/or regions especially related to policy trends and historical and contemporary objectives of the U.S. Prerequisite: none. GSB 270 recommended. Elective Pass/Fail.
494-1 to 6 Honors Research. Directed research for senior government honors students. Not for graduate students. Prerequisite: consent of instructor and chairperson. Student must have at least a *B* average in political science.
500-2 Research Methods — Introduction.
501-3 to 9 (3 per topic) Research Methods.
502-3 to 6 Topical Seminar in Research Methods.
503-3 Data Preparation and Management.
504-3 Pro-Seminar in Political Theory.
505-3 to 6 (3, 3) Topical Seminar in Normative Theory.
508-3 to 6 (3, 3) Topical Seminar in Empirical Theory.
510-3 Pro-Seminar in American Politics.
511-3 to 6 (3, 3) Topical Seminar in American Politics.
514-3 Seminar in American State Politics.
515-3 Seminar in Urban Politics.

516-3 to 6 (3, 3) Seminar in Political Behavior.
518-3 Seminar in Political Parties.
521-3 Seminar in the Legislative Process.
538-3 Seminar in the Judicial Process.
540-3 Advanced Public Administration.
542-3 Planning and Budgeting Systems.
544-3 Program Evaluation.
547-6 (3, 3) Topical Seminar in Public Administration.
560-3 Pro-Seminar in Comparative Politics.
568-3 Seminar in Comparative Analysis.
569-3 to 6 (3, 3) Topical Seminar in Comparative Politics.
570-4 Pro-Seminar in International Relations.
573-3 Seminar in International Organization.
575-3 Seminar in International Law.
577-3 to 6 (3, 3) Topical Seminar in Foreign Policy.
580-3 to 6 (3, 3) Topical Seminar in International Relations.
590-1 to 6 Readings.
591-1 to 6 Individual Research.
593-2 Seminar on Teaching Political Science.
594-1 to 6 Applied Study in Public Affairs.
595-1 to 6 Internship in Public Affairs.
599-1 to 6 Thesis.
600-1 to 36 (1 to 16 per semester) Dissertation.
601-1 to 12 per semester Continuing Research.

Professional Education Experiences (Office)

Student Teaching

Student teaching, together with the seminar in professional education, constitutes a full professional commitment on the part of the student and is a full professional semester of experience in the field carrying 15 hours of credit. Additional course work may be taken only on an overload basis with special permission from the coordinator of professional education experiences.

The student teacher must follow the same daily schedule as the cooperating teacher with whom the student is placed. This means that the student teacher remains in the school for the entire day, as well as participating in whatever extracurricular activities might be the responsibility of the cooperating teacher.

Students majoring in elementary education will be assigned to work with a cooperating teacher in one of the elementary grades, one through six, in an affiliated school. Students majoring in early childhood education will be assigned to work with a cooperating teacher in a kindergarten or primary grade, one through three, in an affiliated school.

The student who majors in a secondary school subject field which has an approved program in the teacher education program will be assigned to work with a cooperating teacher in a secondary school, grades seven through twelve, whose teaching assignment is consistent with the student's teaching major.

Special education majors will be assigned to work with a cooperating teacher in the appropriate special area: mental retardation, behavioral disorders, or learning disabilities. Special education majors will be assigned at both the elementary and secondary levels in order to meet certification requirements. Students majoring in speech pathology and audiology will be assigned to a cooperating teacher who is a speech clinician in an affiliated school.

Students wishing to enroll in the professional semester during the fall or spring semester of the academic year must file an application with the office of professional education experiences, Wham Building, Room 135, at least one semester in advance of the semester during which they wish an assignment. The professional semester program during the summer session is restricted to those individuals who hold either a provisional teaching certificate or a teaching certificate in a

field other than the one for which they are seeking certification. Participation in this program is also dependent upon the availability of suitable placements in the summer school programs of participating public schools.

Applications for both regular academic year and special summer participation are available in the Office of Professional Education Experiences, Wham Building, room 135.

The student must register for the professional semester following normal registration procedures. Registration will include the following courses: Education 400, 4 hours, Education 401, 8 hours, and Education 350, 3 hours. Students will register for the sections of these courses designated for their majors. Registration during the summer session is by restricted class card for Education 300A, 5-8 hours.

PLACEMENT OF STUDENT TEACHERS

Student teaching under the supervision of Southern Illinois University at Carbondale faculty is conducted in professional education centers in affiliated schools in the southern Illinois area as well as in specific locations throughout the state. A current listing of specific schools to which student teachers may be assigned is available in the office of professional education experiences.

In so far as numerical limits will permit, students will be assigned to the location of their choice. However, if the limits have been met, students are advised that they may be assigned to any of the centers which can suitably accommodate them.

Students are advised to make no binding housing commitments during the professional semester until they have received verification of their student teaching assignments. Such housing commitments will not be considered when students are assigned.

PROFESSIONAL SEMESTER – (STUDENT TEACHING) PREREQUISITES

1. Students must have achieved formal acceptance into the teacher education program and must present their records of acceptance when applying for the professional semester.
2. The student is responsible for having all transcripts of credit earned at colleges or universities other than Southern Illinois University at Carbondale on file with the coordinator in the Office of Teacher Education Services. These must be on file by the tenth day of the semester for which the student is applying.
3. Prior to the professional semester, the intern must have completed a minimum of 20 semester hours in the subject proposed to teach. The course work involved must meet the approval of the department chairperson of that major department. (Course work and/or performance required may be obtained from the department concerned.) An up-to-date list of approved majors in the teacher education program may be found in the booklet, *The Teacher Education Program,* or requested from the Office of Professional Education Experiences.
4. The student must have completed a minimum of 100 clock hours of pre-student teaching field experiences.
5. The student must have completed 75 semester hours of credit with a minimum cumulative average of 2.25 before beginning work in student teaching.
6. Each of those courses which are a part of the professional education sequence prior to the professional semester must have been completed with a grade of *C* or better. (Education 301, 302, 303, 304 and 312. The following courses are approved substitutes for Education 312 as a part of the professional education requirements for the majors indicated: Art 318 and 328

for art majors; Music 304 and 306 for music majors; Speech Communication 230 and 390 for speech majors; and Speech Pathology and Audiology 494, 495, and 496 for speech pathology and audiology majors.)

7. The student must have completed GSD 101 and GSD 117, 118, or 119, and one additional English course (GSC, GSD, or English department) with a grade of *C* or better in each of the last two courses completed. The student eligible by ACT (90th percentile or higher) or CLEP scores to take the proficiency examination in English composition may satisfy this requirement with proficiency credit in GSD 101 and GSD 117 and at least a *C* in English 290.
8. The student must have completed the special methods class required for the major prior to the professional semester.
9. Every student teacher must have a health clearance from the University Student Health Program. The health clearance consists of a tuberculin test. If it is not convenient to come to the health service in Carbondale, students may have a tuberculin test by their own medical doctors. A record of the health clearance must be on file in the Office of Professional Education Experiences by the tenth day of the semester immediately preceding the student's professional semester.
10. The student must have established at least one semester of residence at Southern Illinois University at Carbondale, earning a minimum of 12 semester hours of credit, prior to any professional semester assignment.

Field Experiences Other Than the Professional Semester

Other field experiences for students in the teacher education program are provided in Education 302 and Education 312. Applications for these courses are available in the office of professional education experiences.

Psychology (Department, Major, Courses)

The undergraduate major in psychology is primarily aimed at providing broad general education rather than specialized professional training in psychology. To become a professional psychologist usually requires the completion of two to four or more years of postgraduate study.

Students planning to complete a major in psychology must formally declare their intention with the supervisor of the undergraduate curriculum in the Department of Psychology, Room 229, Life Science II. The declaration should be made as early as possible.

Bachelor of Arts Degree, College of Liberal Arts

General Studies Requirements 45
Supplementary College Requirements (See page 84.) ..... (4) + 8-14
Requirements for Major in Psychology 28-30
- GSB 202 ..... (3)
- Mathematics 139 ..... (3)
- Psychology 211 4
  - Psychology electives: (8 courses) The electives must be distributed so at least three courses are chosen from Group A and three from Group B. At least one course must be chosen from 311, 312, 314, 315, 316. At least two of the selections must be at the 400 level.
  - Group A: 301, 303, 304, 305, 307, 316, 320, 322, 323, 330, 333, 421, 431, 432, 440, 451, 459, 461, 463
  - Group B: 309, 310, 311, 312, 314, 315, 404, 407, 409, 411, 415, GSA 302

Psychology 391, 392, 394, 399, 489, and any of those in the above two groups may be used to satisfy the remaining two nondistributed electives. Refer to course descriptions for limitations.
Psychology 101, 106a, b, and 289 may not be used to satisfy major requirements 24-26

Electives 31-39

Total 120

Minor

A minor in psychology consists of 15 hours (a minimum of five courses) of psychology courses from those acceptable for the major.[1]

[1]Students completing a minor in psychology for purposes of obtaining teacher certification in the State of Illinois must complete a minimum of 18 semester hours in the minor area.

Senior Honors Program

A small number of students is selected each year for the honors program. Selection criteria are promising academic performance (3.0 overall grade point average and 3.25 psychology grade point average minimum), expressed interest, recommendation by departmental adviser, and capacity of program to take new students. Emphasis is on small seminar and individual research work by the student.

Courses

101-3 Developing Effective Relationships. The process of group encounter is used to help students achieve a better understanding of themselves and others. Selected readings in interpersonal encounter supplement the experiential laboratory.
106-8 (4, 4) Drug Abuse and the Helping Relationship. A two-course sequence on drug-related problems and developing potential as a helping agent. **(a)** Examination of drug information, experience with small groups, communication, and helping skills. **(b)** Further development of skills; small group and student-designed action projects. Must be taken in a,b sequence. Prerequisite: consent of instructor. Mandatory Pass/Fail.
211-4 Research Methods in Psychology. An introduction to the application of scientific methods to the study of behavior. Experimental design and methodology and correlational procedures are considered. Considerations of data analysis and interpretations are integrated with the treatment of design and methodology. Lecture and laboratory. Prerequisite: GSB 202.
289-1 to 12 Undergraduate Seminar: Selected Topics. Varied content. Offered as need exists and as faculty interests and time permit. Prerequisite: consent of instructor.
301-3 Child Psychology. The biological and psychological development of the child from birth through puberty, and relevant research methods and results. Prerequisite: GSB 202. Elective Pass/Fail.
303-3 Adolescent Psychology. Examines the physical and psychological development of the adolescent, and the relevance of childhood development to adolescent problems. Prerequisite: GSB 202. Elective Pass/Fail.
304-3 Psychology of Maturity and Old Age. A consideration of psychological factors in later maturity and old age, and their concomitant problems, both individual and social. Prerequisite: GSB 202. Elective Pass/Fail.
305-3 Psychology of Personality. The inferred patterns underlying an individual's unique reactions to the environment. Investigates the motivation, development, and methods of changing these patterns, and how personality processes are studied. Prerequisite: GSB 202. Elective Pass/Fail.
307-3 Social Psychology. Introduction to the area of social psychology. Considers methodology, person perception, interpersonal attraction, attitude formation and change, social influence, group processes, intergroup conflict, and other contemporary issues in social psychology.Prerequisite: GSB 202. Elective Pass/Fail.
309-3 Psychology of Learning. Principles and laws of learning as derived from the classical and instrumental learning literature — acquisition, extinction, punishment, persistence, generalization, discrimination, motivation, drives, and incentives. Prerequisite: 211.
310-3 Cognitive Psychology. A survey of theory and research on attention, memory, language behavior, and problem solving. The principal orientation will be the information processing approach to the study of behavior. Prerequisite: GSB 202.
311-3 Experimental Psychology: Learning. Investigates the processes governing behavioral change covered in 309. Experimental studies of conditioning, memory, and forgetting

will be emphasized. Laboratory work will include the design and conduct of experiments with humans and/or animals. Prerequisite: 309.

312-4 Experimental Psychology: Perception. Investigates the variables influencing an organism's stimulation by the environment. The structure and operation of the sense organs as well as complex perceptual phenomena are examined in lectures and laboratory. Prerequisite: 211.

314-3 Experimental Physiological Psychology. A survey through readings and laboratory exercises, of selected topics in physiological psychology. The biological bases of sexual behavior, motivation, and memory are emphasized. Prerequisite: GSA 302, Psychology 211.

315-3 Experimental Psychology: Cognitive Processes. The student conducts three or four experiments in cognitive psychology. The first experiments are described in detail by the instructor; the final experiment is one of the student's own design. Prerequisite: 211, 310.

316-3 Experimental Psychology: Social. A laboratory and lecture course designed to familiarize the student with basic research methodology in experimental social psychology. Prerequisite: 211, 307.

320-3 Industrial Psychology. A study of the use of psychological methods in the analysis of human factors problems in business and industry. Prerequisite: GSB 202. Elective Pass/Fail.

322-3 Personnel Psychology. Covers the use of psychological methods in the analysis of jobs and in the selection, placement, and evaluation of personnel in business and industry. Prerequisite: GSB 202. Elective Pass/Fail.

323-3 Psychology of Employee Relations. Job satisfaction and morale, psychological aspects of labor relations, interviewing methods, and human relations training. Prerequisite: GSB 202. Elective Pass/Fail.

330-4 Psychology Applied to Personal Adjustment. Review of psychological methods potentially useful in self-improvement. Training and practice in learning to use various learning procedures with typical problems in everyday living. Effectiveness assessed and discussed in small groups or confidentially with instructor. Prerequisite: six hours of psychology or consent of instructor.

333-3 Psychology of Women. (Same as Women's Studies 341.) An examination of empirical evidence on the biological, psychological, and social functioning of women, describing women's roles, the genetic versus social determinants of women's behavior, and the implications for women's potential. Prerequisite: GSB 202 or consent of instructor. Elective Pass/Fail.

391-1 to 9 Individual Project. Individual study, research or experience under the supervision of a member of the Department of Psychology faculty. A maximum of three hours of 391 or 392 may count toward the major or minor. Prerequisite: consent of instructor. Mandatory Pass/Fail.

392-1 to 9 Individual Project. Individual study, research or experience under the supervision of a member of the Department of Psychology faculty. For use in those cases where the faculty member deems a graded course to be appropriate. A maximum of three hours of 391 or 392 may count toward the major or minor. Prerequisite: consent of instructor.

394-1 to 9 Undergraduate Practicum in the College Teaching of Psychology. Supervised practicum in the college teaching of psychology for selected senior psychology majors. (A maximum of three hours may count toward the major.) Prerequisite: senior psychology major and permission of instructor.

399-1 to 9 Research and Investigation: Honors. Intensive study in selected areas for students qualified for honors work in psychology. A research paper or equivalent will be required. Prerequisite: consent of chairperson.

404-3 Theories of Perception. An examination of the different theories concerned with an organism's sensory contact with the environment. Physiological, social, and organizational theories of perception will be considered. Prerequisite: 211 or consent of instructor.

407-3 Theoretical Issues in Learning. An introduction to the major theoretical issues in learning and their importance. A brief review of the history of such problems will be followed by a summary of the current research concerning these issues. Traditional figures in learning theory will be considered within the context of their positions on specific questions. Prerequisite: 309 or equivalent.

409-3 History and Systems of Psychology. A review of the conceptual and empirical antecedents of modern psychology. Prerequisite: senior status.

411-3 Principles of Training. An in-depth coverage of practical problems concerned with training to which the principles of learning derived from pure laboratory investigations can be applied. Prerequisite: 309.

415-4 Psychopharmacology. A survey of the effects of drugs on the normal and abnormal behavior of humans and animals. A primary focus is upon understanding drug influences on behavior in relation to actions on the nervous and endocrine systems. Prerequisite: GSA 302, GSB 202. Elective Pass/Fail.

421-3 Psychological Tests and Measurements. Introduction to test theory and test development. Detailed coverage of selected tests from such areas as intelligence, aptitude, and personality. Prerequisite: six hours of psychology.

431-3 Psychopathology. Classification, description, etiology, and treatment of the disorders of personality organization and behavioral integration. Observations in a state mental hospital setting. Prerequisite: 305 or consent of instructor. Elective Pass/Fail.
432-3 Psychopathology of Childhood. An extensive review and systematic evaluation of theories and research pertaining to the behavior disorders of childhood. Emphasis will be upon empirical data and the implications of these data for the classification and treatment of these disorders. Prerequisite: 301, and 211 or Guidance and Educational Psychology 422.
440-3 Theories of Personality. A review and evaluation of major personality theories and their supporting evidence. Prerequisite: 305 or consent of instructor. Elective Pass/Fail.
451-3 Advanced Child Psychology. An assessment of concepts, methods, and research techniques within selected topic areas of developmental psychology. Prerequisite: 211 and 301, or consent of instructor.
459-3 Theory and Practice in the Preschool. Designed for those interested in the education of the preschool-aged child. Examines a variety of topics and provides lectures, demonstration, and practicum experience in the Child Study Cooperative Nursery. Prerequisite: consent of instructor.
461-3 Advanced Social Psychology. Examines in depth current research in experimental social psychology. Emphasis is placed on topics such as person perception, interpersonal attraction, attitude formation and change, social influence, group processes, intergroup conflicts. Not for psychology graduate students. Prerequisite: 211, 307.
463-3 Attitudes: Theory and Measurement. Surveys social psychological theories of attitudes and techniques of attitude scale construction. Students work with existing data files and design and test original scales. Prerequisite: 307.
489-1 to 12 Seminar: Selected Topics. Varied content. Offered as need exists and as faculty interests and time permit. Prerequisite: consent of instructor.
510-3 Learning Processes.
511-3 Human Learning and Memory.
512-4 Sensory Processes.
513-3 Human Psychophysiology.
514-4 Neurobiological Bases of Behavior.
515-3 Theory and Research in Cognitive Psychology.
520-3 Applications of the Psychology of Learning and Memory.
522-8 (4, 4) Experimental Design and Analysis.
523-3 Research Methods in Clinical Psychology.
524-3 Multivariate Methods in Psychology.
525-3 Mental Test Theory.
526-3 Research in Counseling Psychology.
527-3 Theory and Methods of Scaling.
528-3 Decision Analysis: Techniques for Aiding Decisions.
530-4 (2, 2) Systems of Personality and Psychotherapy.
531-3 to 6 Community and Institutional Field Placement.
532-2 Experimental Approaches to Personality.
533-2 Experimental Approaches to Psychopathology.
534-3 Principles of Behavior Therapy.
535-3 Psychopathology.
536-3 Fundamentals of Counseling.
538-3 Theory and Practice of Group Facilitation.
539-3 Experimental Approaches to Psychotherapy.
540-3 Psychological Assessment.
542-3 Principles and Problems in Personality Assessment.
547-3 Appraisal in Counseling.
548-3 Vocational Psychology and Career Development.
549-3 Behavioral Assessment.
551-3 Advanced Developmental Psychology I.
552-3 Advanced Developmental Psychology II.
554-3 Developmental Theories.
555-3 Language and Cognition.
556-2 Psychological Treatment of the Child.
557-2 Family Psychotherapy.
558-3 Personality and Social Development of Adults.
564-3 Program Evaluation: Experimental and Quasi-Experimental Approaches.
571-6 (2, 2, 2) Proseminar in Applied Experimental Psychology.
576-3 Human Engineering.
585-1 to 18 Advanced Seminar.
590-1 to 12 Readings in Psychology.
593-1 to 24 Research in Psychology.
594-1 to 16 Practicum in Psychology.
595-1 to 12 Internship.
596-3 Behavior Therapy Practicum.

597-1 to 15 Preprofessional Training.
598-3 Ethical and Professional Problems in Psychology.
599-1 to 6 Thesis.
600-1 to 24 Dissertation.
601-1 to 12 per semester Continuing Research.

Public Visual Communications (Major [Graduate only], Courses)

The graduate faculty in public visual communications, consisting of members of the Departments of Cinema and Photography and Radio-Television of the College of Communications and Fine Arts, offers graduate work leading to the Master of Arts degree. The public visual communications program has as its objective the development of visual media personnel to serve the communicative needs of society and to prepare interested graduates for doctoral study. The program has been structured with flexibility so as to serve holders of baccalaureate degrees in cinema and photography and radio-television as well as those who hold degrees in other disciplines. For a more complete description of the program, refer to the Graduate Catalog.

Courses

500-3 Introduction to Public Visual Communications.
510-3 Researching and Developing Public Telecommunications Programming.
530-3 International Telecommunications.
532-3 Audience Communications Research.
541-6 (3, 3) Seminar: History of Photography.
542-6 (3, 3) Seminar in Film History.
570-3 Public Telecommunications Program Analysis and Criticism.
571-3 Regulation and Control of Public Communications.
572-4 (2, 2) Management of the Photographic Unit.
573-3 Public Telecommunications Management.
574-3 Contemporary Theoretical Approaches to the Cinema.
580-2 Seminar: Current Trends in Public Telecommunications.
589-3 Seminar: Public Communications in a Dynamic Society.
591-1 to 6 (1 to 3, 1 to 3) Individual Study in Public Visual Communications.
595-1 to 6 (1 to 3 per topic) Advanced Topical Seminar.
597-2 to 6 Production Seminar: Cinema, Photography, and Television.
599-3 to 6 Thesis.
601-1 to 12 per semester Continuing Research.

Radio-Television (Department, Major, Courses)

The Department of Radio-Television prepares students for responsibility as professional broadcasters and as conscientious citizens by combining practical and theoretical courses in broadcasting with the broad background needed to function appropriately in our society. Within an interdisciplinary approach, the Department of Radio-Television studies the public interest while affording work in all aspects of the broadcast media, except the purely technical. The curriculum does not cover broadcast engineering. In addition to classroom instruction, the department is very closely interrelated with the SIU Broadcasting Service, which operates a radio and television station. As an established part of the department's curriculum, students are required to involve themselves in actual on-air experience on these stations. In addition, an internship potential is included in the formal curriculum, so that students with a *B* average or better may gain academic credit for actual professional work experience at broadcasting associated organizations outside the campus.

The core courses, Radio-Television 300M and 300P, must each be completed with a grade of *C* or better and the typing and English requirements described below must be met before students may take any other radio-television courses.

This includes non-majors who wish to take any subsequent radio-television courses. Students are required also to complete Radio-Television 308, 340 and 393, each with a passing grade. The 308 and 340 courses may be taken concurrently. Students must complete 26 semester hours of college credit before registering for either 300M or 300P; transfer students with 45 semester hours may take both courses the entering semester. Southern Illinois University at Carbondale students should attempt to take these courses in the sophomore year; transfers with junior standing should take both courses the entering semester.

Radio-television majors may not take a pass/fail course in either the major or the minor unless such courses are designated as Mandatory Pass/Fail. Each radio-television major must, by the end of the sophomore year, and before enrolling for any radio-television courses beyond 300M and 300P:

1. Either achieve a grade of *B* in both GSD 101 and GSD 117, or 119, or a grade of *C* in English 290.
2. Either demonstrate a proficiency in typing 30 words a minute by passing a test administered by the Department of Radio-Television or attain a grade of *C* in Secretarial and Office Specialties 101a at Southern Illinois University at Carbondale.

A maximum of 38 hours in radio-television courses may be counted toward the first 120 hours for graduation. Each student must have at least 32 hours in radio-television.

Transfer students are permitted to register for any radio-television courses for which they have met the course prerequisites in their first semester in residence at Southern Illinois University at Carbondale. During their first semester in residence, transfer students must meet the English requirement in either of two ways:

1. By successfully completing the requirements outlined above, or
2. By being able to demonstrate equivalency in courses transferred to Southern Illinois University at Carbondale.

The typing requirement explained above must be met during the first semester. No radio-television courses, other than 300M and 300P, may be taken in subsequent semesters until the English and typing requirements have been met. Transfer students must complete at least seventeen hours in the radio-television curriculum in residence at Southern Illinois University at Carbondale.

Bachelor of Science Degree, College of Communications and Fine Arts

General Studies Requirements	45
Requirements for Major in Radio-Television	32
Minor in a cognate department	15
(Exceptions must be approved by the Department of Radio-Television)	
Electives	28
Total	120

The department suggests specialized curricula in various areas of broadcasting for those students who may wish to pursue a specific area of interest. These suggested specializations must meet the department's basic requirements for graduation.

Courses

300M-4 Radio-Television Writing Performance Production. Introduction to the functions, theories, materials and techniques of writing, performing, and production for radio and television. Students write, perform, and produce in radio and television studio laboratories. Extra fee for books and supplies $10.00. Note: Radio-Television 300M and 300P are both prerequisites for all other courses. Students must attain a grade of *C* in these courses before taking other courses in the department. Prerequisite: sophomore standing.

300P-4 Radio-Television Foundations and Programming. Examination of the history, economics and governmental control of the American system of broadcasting plus a com-

prehensive examination of broadcast programming and audience analysis. Note: Radio-Television 300M and 300P are both prerequisites for radio-television majors for all other courses. Students must attain a grade of *C* in these courses before taking other courses in the department. Prerequisite: sophomore standing.

305-2 Basic Communication Research. Principles and techniques of research in communication. Types of research. Examination of empirical studies. Writing of research. Prerequisite: *C* in 300M and P.

308-3 Broadcast Laws and Policies. Legal aspects of broadcasting, via study of historical and current developments in rules, laws, philosophy of broadcast regulation. Relationship of federal and state law, and the various government regulatory agencies concerned with broadcasting. Case studies and written problems in broadcast law. Prerequisite: *C* in 300M and P.

310-3 Radio-Television News Writing. The basic techniques of writing, re-writing and editing news from local and wire service sources, for presentation on radio and television. Actual experience with the WSIU and WSIU-TV facilities is stressed. Laboratory hours required. Prerequisite: *C* in 300M and P.

311-3 Radio-Television News Reporting. Classroom lectures on the techniques of news reporting and the writing of on-the-scene stories. Includes actual covering of a news "beat" and the reporting of the stories for air on radio and television. Laboratory hours required. Prerequisite: *C* in 300M and P; 310 or consent of instructor.

325-3 Survey of Cable Communications. History and projections of CATV industry growth, patterns of regulation and use. Relation of cable communications to other media, and to society. Extensive readings and discussion of the literature. Prerequisite: *C* in 300M and P.

335-3 CATV Programming-Production. Presents theoretical approaches to programming for cable systems originating programs, as well as practical workshop experience in creating and producing such programming. Laboratory hours required. Prerequisite: *C* in 300M and P; 325.

340-3 Production Analysis and Media Criticism. An examination of existing broadcast techniques to develop the student's sensitivity to and perception of broadcast production as a tool for communication. A section on communications theory ties analysis and criticism together. The course requires several written critical analyses of productions and current criticisms of the media. Prerequisite: *C* in 300M and P.

351-3 Programs and Audiences. The interrelationships of program and audiences. Methods of audience and program research, and an investigation of the factors that influence programming decisions. Prerequisite: *C* in 300M and P.

360-4 Radio-Television Performance. Announcing techniques and extensive practice in various media situations. The development of disciplines controlling vocal and visual mechanics and interpretive performances. Radio and television studios and audio and video tape utilized for practice and performance. Laboratory hours required. Prerequisite: *B* in 300M, *C* in 300P; Speech Pathology and Audiology 104.

363-3 Intermediate Radio Production. Techniques of producing, directing, writing and performing radio production announcements and programs, with emphasis on creative use of sound effects and music. Laboratory hours required. Prerequisite: *C* in 300M and P.

365-2 to 4 (2, 2) Television Studio Operations. The operational and production aspects of television studio operation. Participation in actual program production for WSIU-TV. Laboratory sessions will be arranged. Prerequisite: *C* in 300M and P.

369-2 Basic Television Directing. Laboratory instruction in television directing. Practical experience in WSIU-TV's broadcast color studio. Introduction to basic techniques of directing news, music, drama, interviews, and station breaks. Prerequisite: *C* grade in 300M and P; 340; 365.

370-3 Television News Film Production. Technique of filming short news stories and features. Each student will produce short television films using 16mm equipment. Laboratory hours required. Students purchase 300 feet black and white film stock and processing. Prerequisite: *C* in 300M and P.

371-2 Graphics for Television. Various techniques in the special demands of the graphic arts in television. Laboratory hours required. $10 cost for additional laboratory materials. Prerequisite: *C* or better in 300M and 300P.

377-3 Radio-Television Advertising and Sales. Study and practical experience in designing and developing promotional and advertising campaigns for the radio and television media. Selling techniques, methods and skills. Prerequisite: *C* in 300M and P, and in 351.

383-3 Basic Radio-Television Writing. Experience in writing radio and television formats, and announcements — commercial, public service, and promotional. Develops critical awareness and analytical attitude toward broadcast writing, and stresses imagination and creative writing skills. Frequent written assignments in and out of class. Prerequisite: *C* in 300M and P; 340.

384-1 to 2 Radio-Television Practicum. Practical experience in broadcast operations. Available to all majors at the end of the student's chosen sequence. Prerequisite: *C* in 300M and P, and consent of instructor. Mandatory Pass/Fail.

390-4 Operations and Management. Objectives, procedures, equipment, policies and costs in radio and television station development and operation. Program formats for radio and television. Necessary components of program format construction. Prerequisite: *C* in 300M and P; 308, 351, and 377.
391-1 to 3 (2, 1 or 1, 1, 1) Independent Study. Area of study to be determined by student in consultation with radio-television instructors. Prerequisite: *C* in 300M and P; consent of instructor.
393-3 Radio, Television, and Society. The interrelation of radio and television with social habit patterns and with economic and political systems. Prerequisite: *C* in 300M and P; completion of 86 hours.
395-2 to 4 Internship Program. News production, performance or management/sales work experience within a non-university professional organization. The student will be provided an educational experience beyond that available at the University. Prerequisite: junior status, 3.0 or better average in major, and selection committee consent.
430-2 Public Affairs and the Radio-Television Establishment. An examination of the history and scope of public affairs programming on radio and television. The effects of public affairs on programming and audiences. Prerequisite: *C* grade in 300M and 300P.
453-2 Public Broadcasting. The history and regulatory structure of public broadcasting in the United States today, with special emphasis on organizations regulated under the Public Broadcasting Act of 1967. Methods of funding public stations, programming, and careers in public broadcasting are also considered. Prerequisite: *C* grade in 300M and 300P; 308.
467-3 Radio-Television Production Survey. Production techniques and equipment for all phases of radio and television presentations for those who are not planning professional careers in broadcasting. Standards for equipment and facilities selection. Radio and television laboratory production projects. Prerequisite: non-major.
470-3 Documentary Film Production. For the student with a serious interest in the documentary film. Students work in teams researching, writing, filming, and editing films on subjects relating to historical, cultural, or social issues. Prerequisite: *C* grade in 300M, 300P, and 370 or *C* grade in Cinema and Photography 355 and 356 and consent of instructor. Mandatory Pass/Fail. Graduate students must take on letter grade basis.
481-2 ITV Administration, Production and Utilization. Development of ITV production with emphasis on the use of instructional objectives, the relationship of users' manual to the instructional series, and the functions of various personnel in the administration of instructional television. Prerequisite: *C* grade in 300M and 300P.
483-3 Advanced Radio-Television Writing. Exercises in writing broadcast manuscripts including documentary, drama, and children's programming. Prerequisite: *C* grade in 300M, 300P, and 383; 340.
489-2 to 6 Radio Television Workshop. Advanced work in various areas of radio-television and interrelated disciplines. Prerequisite: *C* grade in 300M, 300P, and consent of instructor.
491-3 to 6 (3, 3) Independent Study. Area of study to be determined by student in consultation with radio-television graduate faculty. Prerequisite: *C* grade in 300M and 300P and consent of instructor.

Recreation (Department, Major, Courses)

The Department of Recreation prepares the student for positions in the management of leisure services. The department builds its curriculum on a broad General Studies foundation, offers professional and skills courses within the Department of Recreation, and draws from many related departments of the University for competencies and skills in the preparation of leaders for the recreation profession.

The curriculum emphasizes the practical as well as the theoretical aspects of recreation by offering supervised field experience, and internships in various recreational settings throughout Illinois and the nation.

Students admitted to the Department of Recreation must meet the College of Education requirements and follow their procedures for acceptance. In order to be admitted to practicum courses, students must have a grade point average of 2.25 and the consent of the instructor. Students who do not meet the College of Education requirements must be screened and approved by the department undergraduate faculty.

Students majoring in recreation are required to complete 45 hours of General Studies, 22 hours of professional courses, a total of 16 hours of leadership ex-

perience in at least two areas of interest, and work closely with the department advisers in selecting electives for their chosen area of specialization.

The Department of Recreation offers courses leading to specialization in (1) park and community recreation, (2) therapeutic recreation, (3) outdoor recreation, and (4) commercial recreation management.

Students majoring in recreation should start early in their college careers developing skills and competencies in music, dance, arts and crafts, literature, sports and games, nature, drama, and other leisure and cultural areas. The American Red Cross life saving certificate, American Camping Association campcraft certificate, workshop certificates in recreation sponsored by the state and national recreation and park associations are encouraged for each student. Students focusing on a therapeutic orientation should attempt to acquire either academic or practical experience related to physiological, psychological and sociological functioning and the concomitant effect of disability.

As soon as possible recreation majors will decide on one of the four specializations and elect courses for their areas of specialization. All undergraduate recreation majors will be advised by educational advisement until they have completed the General Studies requirements. Recreation advisers are available to students to explain job opportunities and to outline required and elective courses in their chosen specialization.

Bachelor of Science Degree, College of Education

General Studies Requirements	45
Requirements for Major in Recreation	75
English 290 or Journalsim 340	2-3
Health Education 334	2-3
Six hours selected from Psychology 301, 303, 304, 305, 307, 320, 322, 323	6
Recreation 300, 302, 303, 365, 380-4, 490-12	28
One of the specializations listed below	35-37
Total	120

PARK AND COMMUNITY RECREATION SPECIALIZATION

Recreation 366, 395, 470	8
Eight hours selected from Recreation 310a, 310b, 310c, 310d, 310e	8
Accounting 210	3
Electives	16-18
Total	35-37

OUTDOOR RECREATION SPECIALIZATION

Recreation 310e, 370, 390, 395, 401	14
Accounting 210	3
Electives	18-20
Total	35-37

COMMERCIAL RECREATION MANAGEMENT SPECIALIZATION

Recreation 375, 390, 395	8
Administrative Sciences 170, 304, 385	9
Accounting 210	3
Marketing 305	3
Electives	12-14
Total	35-37

THERAPEUTIC RECREATION SPECIALIZATION

Recreation 304, 460, 461, 462	12
Four hours selected from Recreation 310a, 310b, 310c, 310d, 310e	4

Six hours selected from Recreation 340a, 340b, 340c, 340d, 340e	6
Rehabilitation 409, Psychology 211, or Sociology 312	3-4
GSA 209 or Physiology 210	3-5
Physiology 300 or 301	3-4
Psychology 431 or 432	3
Electives	0-5
Total	35-37

Minor

Students may earn a minor in recreation by completing at least 18 hours of course work. Recreation 300, 302, 303, and 365 are required. The remaining hours may be taken in any recreation courses the student desires. Students wishing to earn a minor in recreation must receive written approval from the Department of Recreation.

Courses

300-3 Leisure and Recreation. An introduction to the professional field of recreation. A study of the historical, philosophical, sociological, psychological, and economic development of leisure and recreation. Insight into the fundamental concepts, values, and functions of leisure and recreation as an individual emotional experience as well as a necessary part of community life.

302-3 Recreation Program Leadership. A study of essential elements and basic principles involved with the organization and administration of various types of recreation programs and services. Emphasis on leadership processes and methodology. Prerequisite: 300 or consent of department.

303-3 Recreation For Special Groups. Problems and characteristics of special groups in society such as teenagers, aged, emotionally disturbed, mentally retarded, physically handicapped, prisoners, and delinquents. Emphasis on leadership processes, methodology, and program materials. Prerequisite: 300 or consent of department.

304-3 Principles and Practices of Therapeutic Recreation. Study of the existing practices and principles utilized in therapeutic recreation; professionalism; legislation; team approaches; activity analysis; supervision functions; community resources; special recreation programs. Prerequisite: 300, 302, 303.

310-12 (2, 2, 2, 2, 2, 2) Recreation Skills. (a) Social recreation, (b) dramatics, (c) leisurecrafts, (d) music and dance, (e) campcraft, (f) playground activities. Prerequisite: 300, 302, 303 or consent of department.

320-3 Nature in Recreation. Acquaints the student with opportunities for the interpretation of the nature phenomenon. The avocational as well as the vocational aspect of nature will be stressed. Required field trip cost not to exceed $20.00. Prerequisite: 300, 302, 303 or consent of department.

330-3 Outdoor Education. Philosophy and principles underlying the programs and methods in modern outdoor education and school camp programs with emphasis on curriculum enrichment through our natural resources. Expenses for required field trip not to exceed $20.00. Prerequisite: 300, 302, 303 or consent of department.

335-3 Expedition Leadership. The skills and techniques needed to plan, organize and conduct expeditions such as overnight hikes, canoe trips, backpacking, field trips, and other types of expeditions. Expenses for required field trips not to exceed $50.00. Prerequisite: consent of instructor.

340-10 (2, 2, 2, 2, 2) Recreation Activities for Special Populations. Students will be made aware of problems and characteristics of special population groups. Emphasis is upon the role of therapeutic recreation with these groups in institutional and community settings: (a) Recreation for the mentally ill and emotionally disturbed. (b) Recreation for the mentally retarded. (c) Recreation for the aged. (d) Recreation for the socially deviant. (e) Recreation for the physically disabled. Prerequisite: 300, 302, 303 or consent of department.

350-6 (1, 1, 1, 1, 1, 1) Recreation Workshops. Current innovations and critical evaluation of methods, materials, and supervision of programs in one of the following areas: (a) day camps, (b) puppetry, (c) storytelling, (d) leisurecrafts, (e) family, and (f) teen centers. Prerequisite: 300, 302, 303 or consent of department.

365-3 Park and Recreation Administration. Administrative procedures in park and recreation departments — organization, finance, personnel, facilities, program, public relations, and other areas of administration. Prerequisite: 300, 302, 303 or consent of department.

366-3 Workshop in Administrative Issues in Recreation. Designed to examine in a workshop current administrative issues in recreation such as practices and trends in budget and finance, legal aspects, grant writing, personnel practices and policies, and others. Prerequisite: 365.

370-3 Camp Management. Principles and procedures of selection and supervision of personnel, program planning, food preparation, health and safety, camp maintenance, evaluation, camp counseling, and other responsibilities of camp administration. Prerequisite: 300, 302, 303 or consent of department.
375-2 Commercial Recreation Management. Problems of commercial recreation related to the profit motive and the challenges and possibilities for public service. Opportunities are examined in such areas as civic centers, student unions, spas and resorts, marinas, ice and roller rinks, sports complexes, and other commercial enterprises. Prerequisite: 300, 302, 303 or consent of department.
380-1 to 6 Field Work in Recreation. Supervised leadership experiences in a public or private recreation setting. It is recommended that a student sign up for two hours per semester. Graduates must complete field experience in at least two areas of specialization. A maximum of six hours of credit may be earned. Prerequisite: 300, 302, 303 or consent of department.
385-1 to 2 Readings in Recreation. Selected readings in professional publications for the purpose of becoming acquainted with the types of research current in community, park, special populations, outdoor recreation, outdoor education, and related fields. For recreation majors only. Prerequisite: 15 hours in recreation.
386-1 to 2 Problems in Recreation. Designed to enable students to effectively request funds, request personnel, initiate new programs, or support recreation leisure services. Prerequisite: 15 hours in recreation.
390-3 Outdoor Recreation Management. Philosophy and principles underlying the growth and development of modern outdoor recreation management. Outdoor recreation is examined in terms of supply and need, economic aspects, environmental problems, and future developments. A laboratory cost of up to $12.00 may be required. Prerequisite: 300, 302, 303 or consent of department.
395-3 Maintenance of Recreation Areas and Facilities. All phases and principles of development, maintenance, and construction of areas and facilities used in a recreation setting. Stress is put on selection and supervision of maintenance personnel. There is maximum cost of $5.00 for course materials in lieu of textbook. Prerequisite: 300, 302, 303 or consent of department.
401-3 Fundamentals of Environmental Education. (Same as Agriculture 401.)
423-3 Environmental Interpretation. (Same as Agriculture and Forestry 423.)
460-3 Therapeutic Recreation. Organization and administration of therapeutic recreation programs in hospitals, nursing homes, schools for the retarded, detention centers, prisons, and other institutions. Emphasis on programs for special populations in the community setting. Prerequisite: 300, 302, 303 or consent of department.
461-3 Program Design and Evaluation for Therapeutic Recreation. To equip the student with skills necessary to systematically design and evaluate programs. Philosophy and nature of systems, system analysis, program implementation and program evaluation. Prerequisites: 300, 302, 303 or consent of department.
462-3 Facilitation and Leisure Counseling Techniques. Study of concepts of leisure counseling as applied to special populations; leisure education models: facilitative techniques including gestalt awareness, transactional analysis, reality therapy, behavior modification, non-verbal communication, values clarification, assertive training, rational emotive therapy, and relaxation therapy.
470-2 School and Community Recreation. The role of the public schools in community recreation. Emphasis on current practices and trends in curriculum content, adult education, extracurricular activities, after-school and vacation programs, and cooperative programs with other agencies. Prerequisite: 300, 302, 303 or consent of department.
475-1 to 24 (1 to 4 per topic) Recreation Workshop. Critical examination and analysis of innovative programs and practices in one of the following areas: **(a)** commercial, **(b)** student centers, **(c)** outdoor education, **(d)** outdoor recreation, **(e)** mentally retarded, **(f)** emotionally disturbed, **(g)** teen centers, **(h)** family, **(i)** aging, **(j)** prisons and detention centers, **(k)** physically handicapped, **(l)** budget and finance, and **(m)** playground leadership. **(n)** maintenance of areas and facilities. Critical examination and analysis of innovative programs and practices in the maintenance of grounds and facilities. Maximum of six hours to count toward master's degree.
485-2 to 12 Practicum in Outdoor Education. A supervised experience in a professional setting. Emphasis on administrative, supervisory, teaching, and program leadership in outdoor, conservation, or environmental education setting. Costs for travel are the responsibility of the student. Prerequisite: consent of instructor.
490-2 to 12 Internship in Recreation. Supervised practicum experience in a professional recreation setting. Emphasis on administrative, supervisory, teaching, and program leadership in the student's area of specialization. For undergraduate credit only. Must be taken during student's senior year. Prerequisite: 16 hours of recreation and consent of instructor.
500-3 Principles of Recreation.
520-3 Park and Recreation Management.

524-3 Professional Skills in Therapeutic Recreation.
525-3 Recreation for Special Populations.
526-3 Professional Issues in Therapeutic Recreation.
530-3 Programs in Recreation.
540-3 Planning Outdoor Areas for Education and Recreation.
550-3 Research in Recreation.
560-6 (2, 2, 2) Seminar in Recreation.
565-3 Seminar in Environmental and Outdoor Education.
570-3 Seminar in Recreation Management.
575-1 to 6 Individual Research.
580-1 to 6 Readings in Leisure and Recreation.
596-1 to 6 Field Work in Recreation.
599-1 to 3 Thesis.
601-1 to 12 per semester Continuing Research.

Rehabilitation (Institute, Major [Graduate Only], Courses)

Courses in this department may require the purchase of supplemental materials not to exceed $10 per course. Field trips are required for certain courses.

Courses

400-2 to 3 Introduction to Rehabilitation. An introduction to the broad field of rehabiltation, to include the processes (services), facilities and personnel involved. Note: students can enroll in the didactic portion for two credits, or three credits if they elect the field trips. No student can take the field trips alone without taking the didactic portion as well.
402-1 to 3 Human Development and Behavior. Examines theories and systems of human development, personal behavior patterns and learning principles related conceptually to rehabilitation processes and practices. Prerequisite: consent of instructor.
406-3 Introduction to Behavior Modification. A survey of the principles and procedures in behavior modification and the scope of its application to human needs and problems.
409-3 Scientific Methods in Behavior Analysis. A general review of philosophical issues and methodological approaches to the study of human behavior; includes sampling procedures, group statistical designs and single-subject multi-manipulation and multireplication tactics. Prerequisite: consent of department.
419-1 to 3 Cross-Cultural Rehabilitation. (Same as Black American Studies 490.) Major focus on the relationship/comparison of basic cultural, economic, and psychosocial processes relative to the rehabilitation of people in contemporary societies. Prerequisite: consent of instructor.
421-3 Vocational Development and Placement. Relates the psychosocial meaning of work, process of vocational development, theories of occupational choice and labor market trends to current and innovative methods of job development, selective placement, and follow-up with the handicapped. Prerequisite: 400 or 501.
425-1 to 6 Developing Employment Opportunities. Designed to train rehabilitation personnel in the attitudes, methods, and skills pertinent to placement of handicapped persons in competitive and other occupations. Prerequisite: special standing and consent of instructor.
431-3 Assessment Procedures in Rehabilitation. Review of fundamental bases of measurement, criteria for evaluating tests, practice with representative instruments in major categories, and the use of tests and work samples in assessing the handicapped's functioning abilities and work potential. Prerequisite: consent of instructor.
436-3 to 4 Vocational Evaluation and Adjustment Services. Introduction to the philosophies of evaluation and adjustment services in rehabilitation settings with emphasis on the rationale for use of psychometric testing, functional behavioral analysis, work sampling, situational assessment, and on the job evaluation in relation to the development of individualized adjustment service programs.
445-2 to 12 Rehabilitation Services with Special Populations. Procedures and programs pertinent to the care and treatment of special populations. Two semester credits will ordinarily be granted for each unit.
(a)-6 (2, 2, 2) Aging.
(b)-6 (2, 2, 2) Alcohol and Drug Abuse.
(c)-6 (2, 2, 2) Economically Deprived.
(d)-6 (2, 2, 2) Emotionally Disturbed.
(e)-6 (2, 2, 2) Genetically Disabled.
(f)-6 (2, 2, 2) Juvenile Offender.
(g)-6 (2, 2, 2) Mentally Retarded.
(h)-6 (2, 2, 2) Physically Handicapped.

(i)-6 (2, 2, 2) Public Offender.
(j)-6 (2, 2, 2) Sensory Disabled.
(k)-6 (2, 2, 2) Developmentally Impaired. Prerequisite: consent of instructor.
446-2 Psychosocial Aspects of Aging. Selected theories of psychosocial aspects of aging will be presented and the psychological and sociological processes of aging with the ensuing changes will be related to these conceptual frameworks. Included for discussion and related to field experience will be such concerns as stress reactions to retirement, physical disabilities, impact of reduced economic resources, and other personal-social changes in aging. Topics will address the knowledge base needed by students concerned with rehabilitation of aging clients in institutional, community and home settings. Therapeutic techniques to ameliorate these stresses will be an integral part of the course. Prerequisite: consent of instructor.
447-2 Biomedical Aspect of Aging. The aging process in a life-span developmental perspective; biological theories of aging, physiological changes in middle and old age and their effects on behavior, performance potential, and psychosocial functioning; senility and other age-related disabilities, their prevention and management; geriatric health maintenance and rehabilitation; institutionalization; death and dying. No prerequisites.
451-3 to 4 General Rehabilitation Counseling. A didactic and experiential analysis of the underlying premises and procedures of individual and group counseling in rehabilitation settings. Prerequisite: consent of instructor.
452-3 Behavior Change Applications. An overview of the development and evolution of applied behavior analysis. Applications of behavior analysis to problems of social significance in institutions, schools, and communities are surveyed. Prerequisite: 406 or consent of instructor.
453-1 to 4 Personal and Family Life Styling. The academic and personal competencies that are characteristic of fully-functioning, integrated persons within the context of our twentieth century environment will be systematically reviewed for adoption in every day living as well as in professional functions. Participants will focus on and experience life styling theories, models, and skills for their own growth and development and learn to assess basic risk-factors in their rehabilitation clients and families prior to helping them program a more balanced, synergistic, and holistic approach to living. Prerequisite: consent of instructor.
461-1 or 2 Introduction to Alcoholism and Substance Abuse in Rehabilitation Practice. A survey of alcohol and substance abuse including the psycho-social and physiological aspects precipitating and maintaining abuse. Further, an overview of indices, population characteristics, and treatment paradigms will be explored as they relate to the rehabilitation process and federal/state legislation.
468-3 Sexuality and Disability. Research and rehabilitation practices pertaining to the unique psychosexual aspects of various chronically disabling conditions will be examined.
471-2 Rehabilitation of the Alcohol Abuser. A comparative survey of community based programs for the alcohol and substance abuser with a focus upon the rehabilitation counselor's role in planning, evaluating and facilitating the use of community resources and varying service agencies in the rehabilitation process for the substance abuser. Prerequisites: permission of instructor.
479-0 to 2 Technical Writing in Rehabilitation. Fundamentals of writing skills applicable to special areas of concern to rehabilitation specialists, namely: writing journal articles, drafting program/grant proposals, and preparing news releases, and program/evaluation reports.
490-1 to 6 (1 to 3 per semester) Readings in Rehabilitation. Supervised readings in selected areas. Prerequisite: consent of instructor.
494-1 to 12 Work Experiences in Rehabilitation. Rehabilitation 494 and 594 both cannot be counted for a graduate degree, only one or the other can satisfy requirements toward a master's degree. Elective Pass/Fail.
501-2 Rehabilitation Foundations.
503-3 Basic Behavior Analysis.
508-3 Complex Behavior Analysis.
513-1 to 4 Medical and Psycho-Social Aspects of Disability.
515-3 Behavioral Applications to Medical Problems.
523-3 Job Restructuring for the Handicapped.
525-3 Developing Job Readiness.
531-3 Individual Assessment Procedures in Rehabilitation.
533-2 Vocational Appraisal.
535-1 Behavioral Observation Methods.
543-3 Child Behavior.
545-3 Behavior Modification in Mental Retardation.
553-3 Learning Therapies for Special Populations.
554-3 Behavior Therapy.
557-2 to 6 Self Regulation of Behavior.
558-2 Rehabilitation with Special Alcoholic Populations.

562-3 Rehabilitation Facilities and Developmental Centers.
563-3 Behavioral Analysis: Community Applications.
564-3 School Related Behavior.
568-3 Sexual Behavior and Rehabilitation.
570-3 Rehabilitation Administration.
572-1 to 3 Volunteer Administration and Programming.
573-2 to 3 Programming, Budgeting, and Community Resources.
574-3 Staff Training and Development.
575-2 Case Management and Reporting.
576-2 to 3 Development and Supervision of Rehabilitation Employees.
578-3 Program Evaluation in Rehabilitation.
579-3 Advanced Fiscal Management in Rehabilitation.
581-4 (2, 2) Professional Issues in Rehabilitation.
582-1 to 4 Seminar in Rehabilitation Services.
583-1 to 4 Seminar in Work Evaluation.
584-1 to 6 (1 to 2 per semester) Seminar in Behavior Modification.
585-1 to 4 Seminar in Counseling/Coordination Services.
586-3 Seminar in Job Development and Placement.
587-3 Seminar in Correlates of Disability.
588-4 Seminar in Research in Rehabilitation.
589-1 to 18 (1 per semester) Professional Seminar in Rehabilitation.
591-1 to 18 Independent Projects in Rehabilitation.
592-1 to 16 Professional Supervision in Rehabilitation.
593-1 to 18 Research in Rehabilitation.
594-1 to 12 Practicum in Rehabilitation.
595-1 to 12 Internship in Rehabilitation.
596-4 Research Design and Methodology in Rehabilitation.
599-1 to 6 Thesis.
600-1 to 30 Dissertation.
601-1 to 12 per semester Continuing Research.

Religious Studies (Department, Major, Courses)

Religious studies examines religious attitudes and behaviors from their earliest beginnings through their dominant forms, east and west, to their modern developments and alternatives, pointing continually to the question, How is religion possible today? Study of this kind makes an interdisciplinary contribution to a liberal education in the humanities and social sciences and also provides a useful base for graduate study in religion, in the arts, or in any of the helping professions such as the ministry, medicine, psychiatry, law, social work, and public service.

Bachelor of Arts Degree, College of Liberal Arts

General Studies Requirements	45
Supplementary College Requirements (See page 84.)	(4) + 8-14
Requirements for Major in Religious Studies	33
Minimum hours from each of four areas as follows:	
Area A: GSC 216, 217, Religious Studies 201	4
Area B: Religious Studies 332, 333, 334, 335, 336, 410f, 430	10[1]
Area C: Religious Studies 320a, b, 360, 361, 441	8[1]
Area D: Religious Studies 301, 302, 340, 341, 352, 353, Sociology 351	11[1]
Electives	28-34
Total	120

[1]Religious Studies 496 may be designed so as to apply toward fulfilling requirements of any one of the three areas B, C, or D. By special permission of the department, students may earn up to four hours major credit in each of three areas (B, C, and D) with courses taken in other departments.

Minor

Students may take a minor in religious studies by completing at least 17 hours distributed among the four areas listed above as follows: 3 hours in A, 7 hours each in any two areas B, C, or D. Substitutions from other departments may be arranged.

Courses

201-4 Introduction to Religious Studies. Comparative methods (historical, theological, psychological, social, scientific, philosophical) applied to various dimensions of religion; examples drawn from primitive, eastern, western traditions.
301-3 Philosophy of Religion. (See Philosophy 301.)
302-3 Contemporary Western Religious Thought. Issues and writers in the contemporary religious scene in Europe and America, with an option for individual study projects.
320-6 (3, 3) Biblical Studies. A survey of Jewish and Christian biblical writings: how they came to be written, for what purposes, and with what effects. **(a)** The Old Testament. **(b)** The New Testament. Elective Pass/Fail.
332-3 Jewish Ideas and Culture. Selected Jewish rites, beliefs, and customs and their cultural roots and consequences. Elective Pass/Fail.
333-4 Myth and Ritual in Archaic Religion. (Same as Black American Studies 385.) The structure of the sacred among selected primitive peoples in Africa, Asia, and the Americas. Primitivism as a mode of being in contemporary culture. Elective Pass/Fail.
334-6 (3, 3) The Asian Traditions. **(a)** Religions of India — Hinduism, early Buddhism, Sikhism, Jainism, Indian Islam. **(b)** Religions of the Far East — China (Taoism, Confucianism, Buddhism) and Japan (Shinto, Zen). Elective Pass/Fail.
335-4 Religion and Culture in America. Tradition and change in the religious movements of the American people from the 17th to the 20th centuries in five periods: Puritans; Great Awakening; Revivalism and Social Reform; Social Gospel; Modern Disaffection. Special emphasis: black and women's movements throughout the history. Elective Pass/Fail.
336-4 The Christian Experience. Inquiries into the history and traditions of Christianity, indicating varieties of leadership, doctrine, ethic, and institutional form. Elective Pass/Fail.
340-4 Psychology of Religion. Four major categories studied in relation to the psychological foundations of religion: fantasy (Feuerbach, Freud, Jung); meaning (Camus, May, Frankl); consciousness (Allport, Maslow, Castaneda); eventfulness (James, Boisen, Erikson); Special issues: behaviorism, altered states of consciousness. Elective Pass/Fail.
341-4 Mysticism and Human Transformation. Comparative studies in selected "classical" mystics, their meaning for contemporary world views, and their relation to consciousness-raising techniques such as meditation and drugs.
352-4 Social Ethics and Life Style. Ethical and critical study of the problem of life style. Issues considered: sexuality, work, family, intimacy, community responsibility, and patriotism. Basic question: How can one create an effective and humane life style?
353-4 Social Ethics and Modern Society. (Same as Sociology 353.) Methods of social ethics applied to the study of problems in complex society such as: revolution, justice, oppression, escape, peace, and impersonalization. Basic question: How is life in complex society possible?
360-4 Religious Narrative and Drama. How religious insights have been created, transmitted, modified, or denied in selected works of Greek tragedy, Shakespeare, Dostoievsky, Melville, and contemporary writers.
361-4 Religious Art and Music. How religion has inspired and used painting, sculpture, voice, and instrument; and how these arts have reacted to some of the crises in the religious dimensions of modern culture.
396-1 to 8 (1 to 4 per topic). Comparative Studies in Religion. Interdisciplinary and cross-cultural approaches to special topics in religion. Topics vary and are announced in advance; both students and faculty may suggest ideas. May be repeated as the topic varies up to a maximum of 8 hours. Prerequisite: departmental approval. Elective Pass/Fail.
410F-3 Comparative Religion. (See Anthropology 410F.)
430-4 Religious Traditions of Southern Illinois. Intensive study based upon field experiences in the religious (popular and traditional) of Southern Illinois. Not for graduate credit.
441-3 Themes in Greek Tragedies and the New Testament. (See Classics 441.)
496-1 to 6 Honors Readings in Religion. Topics selected by student and instructor which ordinarily are not covered in depth in regular course offerings. Not available for graduate credit. Prerequisite: consent of department.

Science (College, Courses)

Courses

257-2 to 8 Concurrent Work Experience Credit. Practical experience in a laboratory or other work directly related to course work in a College of Science program and to the student's educational objectives may be used as a basis for granting credit in the College of Science. Credit is given when specific program credit cannot be granted and is usable for elective credit only. Credit for ongoing work experience is sought by petition and must be approved by the dean and the executive officer of the student's major program before registration. Mandatory Pass/Fail.
258-2 to 8 Work Experience Credit. Practical experience in a laboratory or other work directly related to course work in a College of Science program and to the student's educational objectives may be used as a basis for granting credit in the College of Science. Credit is given when specific program credit cannot be granted and is usable for elective credit only. Credit for past work experience is sought by petition and must be approved by the dean and the executive officer of the student's major program. No grade for past work experience.
259-2 to 24 Vocational Education Credit. Formal, post-secondary, educational credit earned in a military service or other vocational, technical, or occupational program and directly related to the student's educational objectives may be used as a basis for granting credit in the College of Science. Credit is given when specific program credit cannot be granted and is usable for elective credit only. Credit is sought by petition and must be approved by the dean and the executive officer of the student's major program.
500-2 Science Information Sources.

Secondary Education

(SEE CURRICULUM, INSTRUCTION, AND MEDIA)

Secretarial and Office Specialties (Program, Specialized Major, Minor, Courses)

Current developments in office systems and related technology have resulted in many opportunities for information support personnel with special interests and extensive, specialized skills. Both men and women find rewarding careers in administrative support, information systems, and court reporting fields.

A student may earn credit by class attendance; transferring credits from an accredited post-secondary school, such as a community college; passing proficiency examination; credit granted for work experience; or credit granted for work completed in other educational situations.

The student may prepare for a position in a field of special interest by working with an adviser to choose from a variety of allied health, administrative, technical, and business courses to build upon the basic information support requirements in creating an individualized program of study. The student interested in legal information support would take additional courses in legal document production, legal administrative support procedures, and applied law. The administrative assistant student would take courses in administrative document production, administrative support procedures, and office management and supervision. One who wishes to become a medical administative assistant would develop a program including courses in physiology, health insurance processing, and medical administative support procedures. Other possible specializations include insurance, engineering-technical, educational, bilingual, word processing, or graphics and design. It is possible to design programs without shorthand. Students in all areas of specialization will receive on-the-job experience related to their specialty area.

Students entering court reporting must be able to type 30 words per minute. In addition, good language skills are recommended. Court and conference reporting may be pursued as a specialization within the associate degree program, and also is offered as a post-associate specialization for those who have completed an associate degree in a related field at a community college or other post-secondary institution. Students combine classroom instruction with actual courtroom experience in the company of an official reporter in preparation for state and national shorthand reporters examinations. Specialized options include court and conference reporting, specialized reporting, and reporting stenographer/notereader.

Moreover, a student may develop a specialty other than those described above in the following manner:

1. The student should consult the program coordinator about a possible program.
2. Students should draft a program which is coherent and unified, showing courses they plan to take, and explaining the purpose of the program.
3. The completed program must have the support of at least one faculty sponsor.

Students who have an excellent background in office skills are eligible for a program of advanced curriculum entry (PACE) which allows students to complete an associate degree in one summer and one year.

The purchase of cassette tapes and supply packets or a charge is mandatory for students enrolled in learning center courses. A list of the requirements for all learning center courses will be sent upon request. Over a two-year period this would amount to $20 to $60 per student. Students enrolled in court reporting are required to purchase a shorthand machine at the end of their first year at a cost of approximately $300.

An advisory committee composed of business and court reporting personnel serves the program. Current members are Margie M. King, personnel officer, St. Louis County National Bank, Clayton, Missouri; Henrietta Lindsey, administrator, corporate employment services, Ralston Purina Company, St. Louis, Missouri; Philip M. Ray, official court reporter, Union County courthouse, Jonesboro; Mary Burchett, legal assistant — office manager, Charles A. William Law Offices, Paducah, Kentucky; Wanda Mangels, legal secretary; Earl Long, Marion; Avis Cardwell, official court reporter, Jackson County Courthouse, Murphysboro; and Lori Mackey, legal secretary, Feirich, Schoen, Mager, Green and Associates, Carbondale.

Associate in Art Degree, School of Technical Careers

Requirements for Specialized Major in Secretarial and Office Specialties

GSD 101	3
Accounting 110	3
Vocational Education Studies 302	3
Secretarial and Office Specialities 101a,b,c,d, 104	13.5
Other requirements dependent upon specialty program, Including cooperative experience or practicum	37.5-47
Total	60-69.5

Minor in Secretarial and Office Specialities (for students with a major in Spanish)

The minor in secretarial and office specialties is intended for students who wish to train as bilingual secretaries with a major in Spanish. For those skilled in the secretarial areas of shorthand, typing, and transcription the minor requirements are Secretarial and Office Specialties 106, 107, 109, 201, 205, 208, 232, 233, and School of Technical Careers 101 and 3-7 hours of approved electives in secretarial and office specialties courses. For those unskilled in the secretarial areas of short-

hand, typing, and transcription the minor requirements include the courses above and Secretarial and Office Specialties 101a, b, c, d, 102a, b, c, d, and 104.

Courses

101-10 (3, 2, 2.5, 2.5) Keyboarding. Upon successful completion of these courses, the student will **(a)** basic level: develop touch typing techniques, operate machine parts, determine layout of material, machine adjustments, and type basic communications necessary for personal and career purposes, and use correction and carbon copy techniques; **(b)** intermediate level: set up and type various communication documents; **(c)** advanced level: set up and type advanced communication documents; **(d)** pre-specialty level: set up and type special communication documents and develop skill on various electronic and proportional spacing keyboards. Keyboarding speed and accuracy will be emphasized at all levels. Audio-visual-tutorial instruction is utilized at all levels. Lecture two hours. Learning Center three hours per level. Levels must be taken in sequence.

102-10 (3, 2, 2.5, 2.5) Shorthand. Upon successful completion of the course modules, the student will **(a)** Gregg shorthand theory: demonstrate proficiency in Gregg shorthand theory by reading and writing outlines accurately and rapidly and by taking practice dictation on familiar and related material; **(b)** basic shorthand dictation and transcription: demonstrate shorthand skill by taking dictation at faster speeds and by transcribing dictated material accurately and rapidly; **(c)** intermediate shorthand dictation and transcription: attain higher speed and accuracy in shorthand with emphasis on mailability; **(d)** advanced shorthand dictation and transcription: continue to attain higher speed and accuracy with emphasis on mailability and office-style material. Any shorthand system may be used in modules b, c, and d. Lecture/Learning Center four hours. Modules must be taken in sequence. Prerequisite: 101a for 102a; 101b for 102b; 101c for 102c; and 101d for 102d.

103-7.5 (2.5, 2.5, 2.5) Machine Shorthand. Upon completion of this course, the student will **(a)** be able to write on the machine by touch words by sound according to the touch shorthand theory patterns; write touch shorthand abbreviations, derivatives, brief forms, and punctuation symbols; read personal shorthand notes as well as prined text notes; **(b)** take new-matter dictation for five minutes and transcribe the material, transcribe letters in mailable form using the proper spelling, punctuation, English and erasing techniques, and transcribe notes from 20 to 25 wpm; **(c)** write an extensive vocabulary of words, abbreviations, and derivatives; take new matter dictation for five minutes and transcribe that material accurately. Lecture one hour. Laboratory three hours.

104-3.5 Machine Transcription (Introduction). Upon successful completion of this course, the student will properly operate and care for a transcribing unit and develop transcription speed by typing basic business communications from recordings; develop transcription techniques such as typing, grammar, punctuation, sentence structure, form and arrangement, as well as develop a higher transcription speed. The student will be required to make decisions in a variety of assignments. Lecture one hour. Laboratory three hours.

106-1 Reprographics. Upon successful completion of this course, students, given a particular reproduction job, will determine the most appropriate reproduction process by considering pertinent factors. They will then perform the necessary operations to reproduce the copies by using the duplicator, mimeograph, offset, and a variety of copiers. Lecture/laboratory two hours.

107-2 Filing and Records Management. Upon successful completion of this course, the student will apply filing rules to alphabetic, subject, numeric, and geographic methods; determine supplies for various filing systems; and perform filing techniques and demonstrate an understanding of concepts necessary for the establishment, maintenance, revision of a filing system, including micrographics. Lecture/Learning Center three hours.

109-3 Calculating Numerical Information. Upon successful completion of this course, the student will demonstrate skill in calculating numerical information with and without the use of machines such as the ten-key calculator, electronic calculators, and use of computer services, and perform necessary operations required in working with decimals, fractions, percentages, basic statistics, metrics, and graphic displays of numerical information. Lecture/Learning Center four hours.

180-1 Introduction to Court Reporting. Upon successful completion of this course, the student will know the types of reporters and their duties, be aware of job availability and career opportunities, understand the court reporters code of ethics, know the role of the reporter in the courtroom, and be familiar with state and national professional associations. Lecture one hour. Prerequisite: 101a.

182-3 Legal Terminology and Documents. Upon successful completion of this course, the student will be able to recognize, define, spell, and use legal terminology, including Latin words and phrases. The student will also be able to understand and type legal correspondence, client and court documents, and use a variety of reference books and guides. Lecture three hours. Prerequisite: 101b or concurrent enrollment in 101b.

183-7.5 (2.5, 2.5, 2.5) Machine Shorthand I, II, and III. Upon successful completion of these courses, the student will **(a)** be able to write with the machine by touch words by

sound according to the computer-compatible shorthand theory; write shorthand abbreviations, derivatives, brief forms, and punctuation symbols; read printed text notes and student-made machine notes; take dictation of new material for five minutes at 60 to 80 words per minute with a 95 percent accurate transcript; **(b)** demonstrate machine shorthand skill by taking dictation of new material for five minutes at 80 to 100 words per minute, reading dictated notes, and writing an expanded vocabulary using correct theory, and accurate transcription of notes; **(c)** demonstrate machine shorthand skill be taking dictation of new material for five minutes at 100 to 120 words per minute, and rapid and accurate transcription of notes. Lecture five hours; Learning Center five hours. Prerequisite: must be taken in sequence; 101b, c, d or concurrent enrollment.

184-3.5 Pretranscription for Court Reporting. Upon successful completion of this course, the student will properly operate a transcription/dictation unit. Emphasis will be placed on the legal/medical aspect of vocabulary, spelling, capitalizing, numbers, word division, punctuation, grammar, and proofreading for court reporters. The student will dictate court proceedings and other communications from shorthand notes and will produce transcripts with speed and accuracy. Prerequisite: concurrent enrollment in 101c and 183c.

185-2.5 Introduction to Legal Testimony. Upon successful completion of this course, students should be able to take jury charge, congressional record and literary materials at speeds of 110-130 words a minute. Students will be familiar with two-voice dictation and will be able to produce typewritten transcripts. Lecture/laboratory five hours, plus Learning Center hours to be arranged. Prerequisite: 103c.

201-2 to 8 Cooperative Secretarial Experience. Upon successful completion of this course, the student will apply knowledges and skills learned in classroom situations to on-the-job situations in an office closely related to the student's specialty; apply knowledges and skills learned in classroom situations to courtroom situations. Minimum of one hour conference and twenty hours work experience per week.

205-2 Office Management and Supervision. Upon successful completion of this course students will demonstrate competency in the planning, organizing, and controlling of a business office. They will identify proper managerial skills, managerial roles, office services, physical facilities, and records management. Lecture two hours.

207-2 Personality Development. Upon successful completion of this course, the student will be able to demonstrate knowledges learned concerning personal hygiene, personality, poise and charm, clothing, and personal ethics. Lecture 2 hours.

208-3 Applied Law for Technical Careers. An individualized program of instruction designed to acquaint students enrolled in the various technical programs of the School of Technical Careers with the fundamental legal practices and procedures common to their area of specialization. The student will identify, define, and describe contracts, agency and employment, commercial paper, security devices, and insurance procedures related to the student's technical field. Lecture 3 hours.

209-3 Applied Law for Technical Careers II. An individualized program of instruction designed to acquaint students in the various technical programs of the School of Technical Careers with the fundamental legal practices and procedures common to their area of specialization. Students will identify, define, and describe security devices and insurance, partnership, corporations, real property and environment, personal property and bailments, and commercial paper. Prerequisite: 208 recommended.

211-3 Health Insurance Processing. Upon successful completion of this course, students will have an understanding of various common health insurance forms and the procedures involved in processing them in a medical office. Efficient processing will be stressed at the end of the course. Lecture one hour, laboratory three hours. Prerequisite: 101b.

212-6 (3, 3) Medical Terminology, Dictation, Transcription. Upon successful completion of this course, the student will **(a)** demonstrate the use of medical terminology, including prefixes and suffixes; spell and define medical terms and other special terminology used in medical communications/documents; **(b)** increase speed and accuracy in the use of medical terminology, including special terms, short cuts, and abbreviations in the production of medical communications/documents from shorthand notes or recorded dictation. Lecture/Learning Center four hours. Prerequisite: 101c, 104 or 102c.

213-3 Medical Administrative Support Procedures. Upon successful completion of this course, the student will be able to perform necessary duties required of information support personnel in a hospital, clinic, doctor's office or other health-related organization. Lecture two hours, laboratory two hours.

220-4 Legal Document Production. Upon successful completion of this course, the student will be able to produce a variety of legal documents, papers, and office communications typing from handwritten copy, prepared forms, or using transcription equipment. Emphasis will be on decision making and use of modern word processing equipment and procedures. Lecture two hours, laboratory four hours. Prerequisite: 101d and 104. Concurrent enrollment in 222a recommended.

222-6 (3, 3) Legal Terminology, Dictation, Transcription. Upon successful completion of this course, the student should **(a)** know the spelling, punctuation, meaning and applicable shorthand outlines and be able to take dictation if applicable and transcribe from notes or

recorded dictation rapidly and accurately; (b) know specialized terminology related to the legal field, be able to take dictation if applicable and transcribe at faster speeds with accuracy, and be able to handle office-style situations effectively. Lecture/Learning Center five hours. Must be taken in sequence. Prerequisite: 101c, 102d, or 104.

223-3 Legal Administrative Support Procedures. Upon successful completion of this course, the student will perform necessary duties required of information support personnel in a law office or other law related organization. Lecture two hours, laboratory two hours.

230-4 Administrative Document Production. Upon successful completion of this course, the student will produce various communications using electronic keyboards, dictation/transcription equipment, and various modern procedures with speed and accuracy. Lecture two hours, laboratory three hours. Learning Center hours to be arranged.

232-3 Administrative Dictation and Transcription. Upon successful completion of this course the student will take administrative dictation at speeds of 100 to 120 words a minute, transcribe administrative/specialty communications with emphasis on mailability, and build transcription speeds ranging from 20 to 30 words per minute. Lecture/Learning Center four hours. Prerequisite: 101d and 102d.

233-3 Administrative Support Procedures. Upon successful completion of this course, students will be able to perform efficiently administrative support duties including handling mail, telephone situations, composing communications, arranging for travel and conferences, performing basic information processing operations, and carrying out supervisory responsibilities. Emphasis will be on human relations, time management, and organization and planning of work. Lecture three hours. Prerequisite: 101b.

241-3 Insurance Typewriting. Upon successful completion of this course, students will produce a variety of insurance office communications at the typewriter at speeds commensurate to their straight-copy speed. Lecture one hour. Laboratory three hours.

242-3 Insurance Shorthand. Upon successful completion of this course, the student will demonstrate competency by taking dictation with insurance vocabulary words at speeds ranging from 100-120 words a minute, transcribe insurance office communications with an emphasis on mailability, and build transcription speeds ranging from 20-30 words a minute. Lecture one hour. Laboratory three hours.

243-3 Insurance Office Procedures. Upon successful completion of this course, the student will perform office duties peculiar to an insurance office as well as procedures used in all types of offices. Lecture three hours.

244-1 Machine Transcription (Insurance). Upon successful completion of this course, the student will be able to transcribe from a transcribing unit most all types of insurance office communications at a rate of speed commensurate to the student's straight copy speed. Students will be required to make decisions in a variety of instances. Lecture/laboratory two hours.

260-3 Introduction to Text Processing. (Same as Electronic Data Processing 260.) Each student will learn the basic operation and function of representative word processing machines and terminals. The lab time will be spent in the development of speed and accuracy in the typing of textual materials. Lecture two hours. Laboratory two hours. Prerequisite: typing skill.

285-3 Legal Testimony I. Upon successful completion of this course, students will be able to take jury charge, legal opinion, and testimony materials at 130 to 180 words per minute. Reporting shortcuts and phrases are emphasized. Oral readbacks are stressed. Lecture/laboratory five hours. Learning Center hours to be scheduled. Prerequisite: 185.

286-3 Literary/Medical I. Upon successful completion of this course, students should be able to take literary material at speeds of 130 to 180 words per minute. Students should know medical terminology including prefixes, suffixes, and roots of medical words commonly found in depositions and court transcripts. Lecture/laboratory five hours. Learning Center hours to be scheduled. Prerequisite: 141 and 185.

287-3 Legal Testimony II. Upon successful completion of this course, students should be able to take jury charge, legal opinion, and testimony materials at speeds of 160 to 210 words per minute. Three- and four-voice dictation is introduced and type transcripts are produced. Lecture/laboratory five hours. Learning Center hours to be scheduled. Prerequisite: 285.

288-3 Literary/Medical II. Upon completion of this course, students should be able to take literary materials at speeds of 160 to 210 words per minute. Medical terminology will be studied. Lecture/laboratory five hours. Learning Center hours to be scheduled. Prerequisite: 286.

313-5 Advanced Machine Shorthand. Upon completion of this course, the student should have developed a take speed of 160 words a minute with an accuracy tolerance of five percent on literary material; reviewed computer compatible abbreviations and reporting phrases; increased transcription speed from 40 to 50 words a minute; reviewed rules of punctuation; reviewed legal and medical voacubulary; developed a technical vocabulary; and been introduced to the ethics and responsibilities of the reporting profession. Lecture three hours. Laboratory three hours. Prerequisites: 222a and 212a.

316-1 Legal Ethics. Upon completion of this course, the student should understand the canons of professional ethics as listed in *Cochran's Law Lexicon* and the NSRA Code of Ethics; have observed the etiquette and duties of court reporters by attending court sessons; have taken testimony in court and transcribed that copy in proper, final form; have taken jury charges and legal dictation in class at speeds of 100 to 180 words a minute and transcribed that copy with a minimum of 95 percent accuracy; have taken depositions and transcribed them in state-approved form. Lecture/laboratory two hours.

385-3 Legal Testimony III. Upon successful completion of this course, students should be able to take jury charge and legal opinion materials at speeds of 190 to 220 words per minute and testimony materials at speeds of 190 to 240 words per minute. Three- and four-voice dictation will be further developed and typed transcription of multiple voice material will be required. Lecture/laboratory five hours. Learning Center hours to be arranged. Prerequisite: 287.

386-3 Literary/Medical III. Upon successful completion of this course, students should be able to take literary materials at up to 210 words per minute. Medical terminology is reviewed and further developed. Typewritten transcription is stressed. Lecture/laboratory five hours. Learning Center hours to be scheduled. Prerequisite: 288.

387-3 to 12 Court Reporting Practicum. Upon successful completion of this course, students should have spent a minimum of 48 hours in assigned general reporting offices and official reporting locations as observers and in on-the-job training under the guidance of experienced reporters. Lecture one hour. Prerequisites: 200 words a minute.

Social Studies (Major)

Bachelor of Science Degree, College of Education

General Studies Requirements		45
Requirements for Major in Social Studies		50[1]
GSB 300, 301, U.S. history elective	(6) + 3	
World history, 205a, 205b plus three hours at 300 or 400 level	9	
Economics 214, 215, economics elective	9	
GSB 212, Political Science 213, political science elective	10	
GSA 330, Geography 300, geography elective	(3) + 5	
GSB 104, 202, Sociology 301	(6) + 4	
Electives to be chosen from any one of three fields of anthropology, psychology, or sociology but concentration in one is recommended	7	
Curriculum, Instruction, and Media 469	3	
Professional Education Requirements		25
See Teacher Education Program, page 77.		
Total		120

[1]Although the hours shown in parentheses are required for the major, they also will count toward the 45 hour requirement in General Studies.

Social Welfare (Major, Courses)

The social welfare program, which is a part of the Division of Social and Community Services, offers a professional curriculum which is designed to meet the educational needs of students with career interests in the human services field and leads to a Bachelor of Science degree with a major in social welfare. The curriculum provides an interdisciplinary approach to understanding people in contemporary society, basic social problems, and some of the issues associated with the prevention and treatment of these problems.

The basic objectives of the program are; 1) to prepare students for immediate employment in social work positions which do not require graduate education; 2) to prepare students for graduate social work education; 3) to contribute to the enrichment of general education by challenging students to understand social welfare needs, services, and issues.

Two of the basic courses in the curriculum are field experiences. In these courses the students attend weekly seminars and work a minimum of 20 hours each week under supervision in an approved social service agency where they provide direct services to clients. Placements may be made over two semesters half time or for one semester full time. Field placements may not begin during summer session. Arrangements can be made for field practicum in approved social service agencies away from the University under special circumstances.

The social welfare program is accredited by the Council on Social Work Education, the national accrediting agency, and is recognized for advanced standing credit by most graduate schools of social work.

Academic Requirements. Students must be in good academic standing with at least a *C* grade point average in order to be considered for acceptance into the program.

Advisement. A student planning to major in social welfare should consult with the social welfare academic adviser of the College of Human Resources as early as possible in order to plan an orderly and coherent program. All faculty members are available for advice and career guidance information.

Bachelor of Science Degree, College of Human Resources

General Studies Requirements	45
Area A: GSA 125, 209, 220, 221, 302 recommended	
Area B: GSB 202, 203 required. GSB 104, 109, 112, 207, 211, 212 299, 321, 325, 330 recommended	
Area C: GSC 104, 205, 214, 325, 363, 390 recommended	
Area D: GSD 112 required.	
Area E: University requirements	
Requirements for Major in Social Welfare	54-55
Social Welfare 375, 380, 383, 401, 402, 411, 416, 421, 441, 442, 443, 444	41
Political Science 426	3
Health Education 311	3
Sociology: One of the following: 302, 332, 335, 340, 372, 406, 424, 426	4
Psychology: One of the following: 301, 303, 304, 305, 307, 330, 415, 431, 440	3-4
Electives	20-21
Recommended: Electives in Social Welfare, Black American Studies 230, 330, Economics 303, 304, History 365, Philosophy 342, Political Science 324, Community Development 401, 405	
Total	120

Courses

375-3 Social Welfare as a Social Institution. Interdependence of social, cultural, political, and economic factors in the history, theory, and practice of social welfare, with special reference to development of the social work profession in response to welfare problems.

380-3 Methods of Social Work I. This course serves as an introduction to social work practice. It provides a conceptual framework for problem solving and change with individuals, families, groups, and communities.

383-4 Methods of Social Work II. This is an introductory course in interpersonal skills in the social services. Interviewing and history taking skills are emphasized. Prerequisite: 375 and 380.

391-2 Social Services and Minority Groups. (Same as Black American Studies 391.) Exploration of the needs, experiences, and attitudes of minority groups pertaining to social welfare services. Implications for policy and programs in such areas of service as physical and mental health, child welfare, family planning, income maintenance, recreation, education, training and employment. Prerequisite: 375.

396-1 to 3 Readings in Social Welfare. Varying topics not ordinarily covered in depth in regular courses and of specific interest to advanced students. Prerequisite: consent of instructor.

401-4 Methods of Social Work III. An examination of problem solving interventions and environmental modification skills for use with individuals, families, and small groups. Not for graduate credit. Prerequisite: 375, 383, and Health Education 311.
402-3 Methods of Social Work IV. This course examines social work processes with non-clinical groups and communities. Leadership, roles, structure, assessment, planning and problem solving strategies are key content areas. Prerequisite: 383 and Health Education 311.
411-3 Methods of Social Research. Examines the principles, concepts and methods of scientific investigation in terms of its application to social work research and practice. Not for graduate credit. Prerequisite: 375, 380, 383, Health Education 311 and GSD 112 or its equivalent.
416-3 Human Behavior and the Social Environment. A social systems approach to the study of human development and behavior. Examination of environmental forces impinging on the individual and implications for social work practice. Not for graduate credit for social welfare majors. Perequisite: 375, 380, and Health Education 311.
421-3 Social Welfare Policy. This course provides an in depth examination of social welfare structure, functions, policy, and programs, as well as strategies for shaping and changing policy. Prerequisite: 401, 411, 416, and Health Education 311.
426-2 Comparative Social Welfare Systems. An examination of social welfare policies and practices in other countries and by international organizations. Prerequisite: 375.
441-6 Social Work in Selected Agencies. At least 20 hours per week of supervised experience in an approved social work agency with concurrent weekly seminar. Not for graduate credit. Field work practicums begin only in fall and spring semester. Prerequisite: senior standing, 375, 380, 383, 401, 402, 416, and a 2.5 grade point average in departmental prerequisites: Must be taken concurrently with 443. Mandatory Pass/Fail.
442-6 Advanced Field Practicum. Supervised field work experience in an approved social service agency with concurrent weekly seminar. At least 20 hours per week. Not for graduate credit. Field work practicums begin only in fall and spring semester. Prerequisite: senior standing, 375, 380, 383, 401, 402, 416, and a 2.5 grade point average in departmental prerequisites. Must be taken concurrently with 444.
443-1.5 Field Practicum Seminar. The seminar assists the student who is in the field work to systematically conceptualize and integrate the field experience with the generic social work practice model and micro and macro social welfare theory. The seminar builds on and reemphasizes content provided in previous social welfare courses. Seminar discussion focuses on shared field work experiences: practice issues related to social welfare principles, ethics and professionalism; and intervention strategies. Not for graduate credit. Must be taken concurrently with 441.
444-1.5 Advanced Field Practicum Seminar. The seminar assists the students who is in field work to systematically conceptualize and integrate the field experience with the generic social work practice model and micro and macro social welfare theory. The seminar builds on and reemphasizes content provided in previous social welfare courses. Seminar discussion focuses on shared field work experiences: practice issues related to social welfare principles, ethics, and professionalism; and intervention strategies. Not for graduate credit. Must be taken concurrently with 442.
451-2 Seminar in Social Casework. A problem-solving approach based on case studies aims to explore alternate methods in counseling if individuals and families. Prerequisite: consent of instructor.
452-2 Seminar in Group Treatment. Study of theory and practice in social group work covering various methods of group treatment interventions. Prerequisite: consent of instructor.
453-2 Seminar in Community Work. Study of variety of strategies of intervention in agency and grass roots decision-making processes leading to social change through citizen participation. Prerequisite: consent of instructor.
461-3 Child and Family Services. Problems of child-parent relationships and difficulties in social functioning of children and adolescents. Adoptions, foster home and institutional placements, protective services. Not for graduate credit. Prerequisite: consent of instructor. Elective Pass/Fail
462-2 School Social Work. Organization, development, and administration of school social work. Referrals for school social work services. Functions and responsibilities related to pupil personnel services. Evaluation, school placement, remedial procedures, cooperation with home and community agencies.Prerequisite: consent of instructor.
463-2 Social Work with the Aged. Basic concepts of social work methods applied to the older adult group. Characteristics of the aged group, its needs and potentials. Social trends and institutions involved in services to the aged. Prerequisite: consent of instructor.
464-2 Public Welfare. Social work knowledge, values, and techniques in public assistance. Care and rehabilitation of the public welfare client affected by social problems and social change. Prerequisite: consent of instructor.
465-2 Strategies in Health and Mental Health. A survey of current legislative and service trends in health programs under governmental and voluntary auspices. Preventive and restorative concepts will be explored in relation to chronic disease, aged adults, maternal

and child health, and community health services. Role of social workers as an integral part of the medical and psychiatric case system. Prerequisite: consent of instructor.
466-3 Public Policies and Programs for the Aged. An introducion to public policy, program and planning for the aged. A framework is utilized for analyzing policy issues, programs and research in such areas as income maintenance, long term care, transportation, leisure time, housing and social services in order to aid present and future practitioners who work with the aged.
496-1 to 6 Independent Research in Social Welfare. Not for graduate students. Prerequisite: consent of instructor.

Sociology (Department, Major, Courses)

Bachelor of Arts Degree, College of Liberal Arts

General Studies Requirements	45
Supplementary College Requirements (See page 84.)	(4) + 8-14
Requirements for Major in Sociology	32
Sociology 301	4
Sociology 497 senior seminar	4
Sociology (Two 400-level courses)	8
Sociology electives	16
Electives	29-35
Total	120

Minor

A minor in sociology consists of a minimum of 15 hours including Sociology 301. Students completing a minor in sociology to meet part of the requirements for a teaching certificate in the State of Illinois must complete a minimum of 18 hours including Sociology 301.

Honors Program

The department offers a honors program for academically outstanding sociology majors. Qualifications for acceptance into this program consist of: (1) an overall grade point average of at least 3.00; (2) completion of 8 hours in sociology courses with a grade point average of at least 3.25. Three honors courses are offered at the junior and senior class levels. For details, qualified students interested in this program should consult the director of undergraduate studies in the Department of Sociology.

Courses

301-4 Principles of Sociology. This course is intended to acquaint sociology majors and prospective majors with basic principles in a broad sampling of substantive areas of contemporary sociology as background for more advanced courses. Elective Pass/Fail.
302-4 Contemporary Social Problems. Review of the basic sociological perspectives used in the study of social problems; discussion and analyses of selected contemporary social problems; assessment of alternative courses of action for the solution of problems. Elective Pass/Fail.
308-4 Statistics for Social Science. Methods and application of statistics in the social sciences. Measures to describe distribution, measures of relationship, statistical inference. Prerequisite: 301 or six hours of GSB courses. Elective Pass/Fail.
312-4 Elements of Sociological Research. Types of research. Principles and steps in research procedure. Selected techniques. Prerequisite: 301 or six hours of GSB courses. Elective Pass/Fail.
316-3 Political Socialization. (See Political Science 316.)
332-4 Comparative Social Organization. Examination of social organization and institutions in pre-industrial and industrial societies. Prerequisite: 301 or six hours of GSB courses. Elective Pass/Fail.
335-4 Urban Sociology. The structure, culture, and problems of modern cities, with emphasis on American cities; the impact of culture and structure on modern urban life; problems of community, social identity, mass culture, and social control; implications for urban planning. Prerequisite: 301 or six hours of GSB courses. Elective Pass/Fail.

340-4 Family. The family in historic and contemporary society; evolution of the modern family; changes in family functions, structure, roles; and an examination of variation and change in family systems. Prerequisite: 301 or six hours of GSB courses. Elective Pass/Fail.
351-4 Sociology of Religion. The origin and function of religious ideas and institutions in society, their relationship to social change and stability. Prerequisite: 301 or six hours of GSB courses. Elective Pass/Fail.
353-4 Social Ethics and Modern Society. (See Religious Studies 353.)
371-4 Population Problems. Characteristics and problems of population growth, composition, distribution, mortality, birth control and fertility, international and internal migration, and government policies. Prerequisite: 301 or 6 hours of GSB courses. Elective Pass/Fail.
372-4 Criminology. The nature of crime; criminal statistics; causal factors; theories and procedures in prevention and treatment. Prerequisite: 301 or six hours of GSB courses. Elective Pass/Fail.
374-4 Sociology of Education. Methods, principles, and data of sociology applied to the educational situation; relation of education to other institutions and groups. Prerequisite: consent of instructor or 301 or six hours of GSB courses. Elective Pass/Fail.
385-4 Energy and Society. Analysis of the development of human social organization accompanied by increasing control of power, technology, and energy resources. Review of changes in social institutions, social processes, and population distributions. Aspects of social control of energy and technology. Prerequisite: consent of instructor or 301 or six hours of GSB courses. Elective Pass/Fail.
396-1 to 3 Readings in Sociology. Prerequisite: 301 and consent of department and instructor. Elective Pass/Fail.
396H-1 to 3 Honors Readings in Sociology. Topics selected jointly by student and instructor which ordinarily are not covered in depth in regular course offerings. Prerequisite: 301 and consent of department and instructor. Elective Pass/Fail.
397H-3 Honors Seminar in Sociology. Varying sociological topics studied in depth and breadth. Maximum opportunity for student participation in the exploration of the subject. Prerequisite: 301 and consent of department and instructor. Elective Pass/Fail.
406-4 Social Change. Theories and problems of social change; their application, with emphasis on the modern industrial period. Prerequisite: 301 or consent of instructor. Elective Pass/Fail.
413-3 European Rural Society, 400-1100 A.D. (Same as History 413.) Monks, priests, peasants, barons, and kings: an historical sociology of the ecclesiastical and feudal regimes which replaced classical civilization after the fall of the Roman Empire in the West. Elective Pass/Fail.
414-3 European Urban Society, 1000-1500 A.D. (Same as History 414.) Merchants, bankers, craftsmen, lawyers, and bureaucrats: a sociological and economic analysis of the origins and development of early European urban institutions. Elective Pass/Fail.
415-3 Logic of the Social Sciences. (See Philosophy 415.)
424-4 Social Movements and Collective Behavior. A sociological analysis of the behavior of collectivities in uninstitutionalized settings; crowds, masses, publics and social movements will be examined with relation to their social and cultural backgrounds, forms of expression and organization, and their functions in society. Prerequisite: 301 or consent of instructor. Elective Pass/Fail.
426-4 Social Factors in Personality and Adjustment. Review of selected theoretical orientations and research traditions in social psychology. Comparison of different theoretical and methodological approaches — symbolic interaction, role theory, developmental and social psychology, theories of attitude organization and change, studies of belief and value systems, theories of socialization. Prerequisite: 301 or consent of instructor. Elective Pass/Fail.
435-4 Social Stratification. A comparative study of social class systems, with emphasis on the American system. Relationships of class position to behavior in family, religion, politics, etc. Prerequisite: 301 or consent of instructor. Elective Pass/Fail.
437-4 Sociology of Rural Development. Rural development and rural social problems in the United States and other countries. Concepts of rural and urban, developed and underdeveloped, characteristics of rural populations and institutions; rural development analyzed functionally and historically. Prerequisite: 301 or consent of instructor. Elective Pass/Fail.
450-4 Social Thought. Traces the historical development of sociology from its beginnings in the Enlightenment to the classical expositions of the early 20th Century. Prerequisite: 301 or consent of instructor.
451-4 Sociology of Language and Signs. (Same as Speech Communication 446.) Introduction to sociological semiotics with reference to such figures as Eco. Foucault, Derrida, Baudrillard, Saussure, Habermas, the ethnomethodologists. Emphasis on the place of language and signs in sociological explanation.
454-4 Sociology of Science. Emphasis on the origins and growth of science in historical perspective, reciprocal relations between science and society in the 20th Century, science as a social system, differentiation within and relations between disciplines, and implica-

tions of the social organization of scientific research and funding. Prerequisite: 301 or consent of instructor. Elective Pass/Fail.
460-4 Sociology of Medicine. Examination of the sociological factors involved in health and illness, the role of medicine in society, the organization of medical care and health institutions in the United States, and the prospects for sociological research in this area. Prerequisite: 301 or consent of instructor. Elective Pass/Fail.
465-3 Sociology of Aging. The adult life cycle from a sociological perspective, with emphasis on the later stages of adulthood. Special topics on aging include demographic aspects, family interaction, ethnicity, and cross-cultural trends.
471-4 Introduction to Social Demography. Survey of concepts, theories, and techniques of population analysis; contemporary trends and patterns in composition, growth, fertility, mortality, and migration. Emphasis is on relationship between population and social, economic, and political factors. Prerequisite: 301 or consent of instructor. Elective Pass/Fail.
472-3 The American Correctional System. (See Administration of Justice 472.)
473-4 Juvenile Delinquency. (Same as Administration of Justice 473.) Nature of sociological theories of delinquency; analytical skills in studying the delinquent offenders; systematic assessment of efforts at prevention, control, and rehabilitation in light of theoretical perspectives. Prerequisite: 301 or consent of instructor. Elective Pass/Fail.
475-4 Political Sociology. (Same as Political Science 419.) An examination of the nature and function of power in social systems at both the macro-and micro-sociological levels of analysis, the social bases of power and politics; and various formal and informal power structures; the chief focus will be on American society. Prerequisite: 301 or consent of instructor. Elective Pass/Fail.
497-4 Senior Seminar. Contemporary issues in sociology and the analysis of these issues. Prerequisite: senior standing with 20 hours in sociology (including 301), or consent of instructor. Elective Pass/Fail.
498-1 to 4 Independent Research. With a faculty member the student arranges a research topic resulting in a paper or report. Prerequisite: senior standing with 20 hours of sociology (including 301), and consent of instructor. Elective Pass/Fail.
498H-1 to 4 Honors Independent Research. Advanced research study of a problem. Not for graduate credit. Prerequisite: senior standing with 20 hours in sociology (including 301), and consent of department and honors standing. Elective Pass/Fail.
501-4 Survey of Sociological Theory.
502-4 Seminar on Theoretical Systems in Sociology.
506-4 Seminar on Contemporary Sociological Theory.
512-5 Sociological Research.
519-4 Methodological Foundations of the Social Sciences.
521-4 Seminar in Social Psychology.
522-4 The Sociology of Small Groups.
526-8 (4, 4) Quantitative Methods of Sociology.
529-4 Sampling and Inference in Social Research.
530-2 to 12 (2 to 4 per topic) Topical Seminar in Sociology.
532-4 Urban Social Structure.
537-4 Sociology of Law.
539-4 Seminar in Complex Organization.
542-4 Seminar on the Family.
543-4 Seminar in Family Variability and Change.
551-4 Sociology of Religion.
562-4 Deviance and Disorganization.
564-4 Social Factors in Health and Illness.
566-4 Sociology of the Community.
572-4 Seminar in Criminology.
574-3 to 4 Seminar in the Sociology of Education and Science.
591-1 to 4 Individual Research — Supervised Research Projects.
596-1 to 8 Readings in Sociology.
599-1 to 6 Thesis.
600-1 to 32 (1 to 16 per semester) Dissertation.
601-1 to 12 per semester Continuing Research.

Special Major (Major)

The special major program allows qualified undergraduate students to design their own majors, if no existing major meets their academic needs and interests but existing University resources may be used to satisfy them. Guidelines for developing a special major curriculum are available in the office of the program

administrator, the dean of General Academic Programs. These require that the student:

1. obtain a faculty sponsor from a department with studies most like the major,
2. collaborate with the sponsor to propose a workable plan of study, structured coherently around a central topic, with a title that identifies the program's individualized purpose,
3. receive approval of the program proposal from the dean of General Academic Programs,
4. complete at least 28 semester hours, mainly in upper level, 300 or 400, courses and clearly attributable to the special major, after it has been approved,
5. meet all graduation and course hour requirements of the University and of the college and department which agree to sponsor the special major. Final recommendation for a baccalaureate degree with a special major is the prerogative of the dean of General Academic Programs, with approval of the appropriate college dean.

Special Education (Department, Major, Courses)

In the Department of Special Education, teachers are prepared to work with behaviorally disordered, mentally retarded, and learning disabled children. Students seeking the Standard Special Cetificate will complete a 120 semester hour program leading to approval in one of the three handicap areas listed above. Students who wish to obtain joint certification in special education and elementary education must complete a 144 to 149 hour program.

All programs are fully approved by the Illinois State Teacher Certification Board.

As with other teacher preparation programs within the University, departmental approval must be secured for each student after the student's first semester of membership in the department.

In the Department of Special Education this approval and subsequent approvals are based not only on continued satisfactory academic performance, but acceptable professional behaviors which the faculty deem essential for competent and effective educators of exceptional children and youth.

Bachelor of Science Degree, College of Education

SPECIAL EDUCATION MAJOR — STANDARD SPECIAL CERTIFICATE WITH APPROVAL IN BEHAVIORAL DISORDERS, OR MENTAL RETARDATION, OR LEARNING DISABILITIES'

General Studies Requirements 45
- GSA: 9 hours
- GSB: 9 hours including 202 and 212, 300 or 301
- GSC: 12 hours including Music 101 (GSC substitution) and one literature course
- GSD: GSD 101; 117 or 119; GSD 152 or 153; Mathematics 114 or equivalent to substitute for GSD 107
- GSE: 4 hours including 201 and two hours of physical education activity.

Additional General Education Requirements for Certification 20
- Art 348 or Vocational Education Studies 370; Music 302 or 300; Physical Education 202; Mathematics 314
- Psychology 301
- Guidance 412 or Psychology 431
- Special Education 400

Requirements for Major in Special Education 49

Professional Education Requirements 26
Education 201, 301, 302, 303, 304c, 312, 350, 400[1], 401[1]
Special Education Requirements 23
Special Education 411, 423, 425 7
Curriculum, Instruction, and Media 312, 315 6
Certification Area 10
The certification area requirement must include the specific courses listed and additional courses approved by the department to bring the total in the areas to at least 10 hours.
Behavioral Disorders: 401, 417, 430
Mentally Retarded
Educable Mentally Retarded: 402, 406, 418, 430
Trainable-Severely/Profoundly Handicapped: 402, 406, 421, 431
Learning Disabilities: 404, 419, 430
Electives 6
Psychology 305, 307 (both required in behavioral disorders)
Total 120

[1]To be certified in two areas of special education, a student must take problem and characteristics courses in both areas, methods courses in both areas and eight hours of student teaching in both areas.

SPECIAL EDUCATION MAJOR — JOINT CERTIFICATION IN SPECIAL EDUCATION AND ELEMENTARY EDUCATION SPECIALIZATION

General Studies Requirements 45
GSA: 9 hours
GSB: 9 hours including 202 and 212, 300 or 301
GSC: 12 hours including Music 101 (GSC substitution) and one literature course
GSD: GSD 101; 117 or 119; GSD 152 or 153; Mathematics 114 or equivalent to substitute for GSD 107
GSE: 4 hours including 201 and two hours of physical education activity
Additional General Education Requirements for Certification 20
Art 348 or Vocational Education Studies 370
Music 300 or 301 or 302
Physical Education 202
Mathematics 314
Psychology 301
Guidance 412 or Psychology 431
Special Education 400
Requirements for Major in Special Education 69
Professional Education Requirements 34
Education 201, 301, 302, 303, 304c, 312, 350, 400[1], 401[1]
Special Education Requirements 17
Special Education 411 423, 425 7
Certification Area 10
The certification area requirement must include the specific courses listed and additional courses approved by the department to bring the total in the area to at least 10 hours.
Behavioral Disorders: 401, 417, 430
Mentally Retarded
Educable Mentally Retarded: 402, 406, 418, 430
Trainable-Severely/Profoundly Handicapped: 402, 406, 421, 431
Learning Disabilities: 404, 419, 430
Elementary Education Requirements 18
Curriculum, Instruction, and Media 315, 312, 423, 424, 426, 435

Electives (must bring total in general education to 78) 13
Psychology 305, 307 (required in behavioral disorders)

Total 147

[1]Includes eight hours of student teaching for special education and eight hours of student teaching for elementary education.

Courses

400-3 Introduction to Special Education. Physical, mental, emotional, and social traits of all types of exceptional children and youth. Effects of handicaps in learning situations. Methods of differentiation and techniques for rehabilitation. Case studies, observations, and field trips may be required.

401-3 Problems and Characteristics of Behavior Disordered Children and Youth. Diagnosis, screening, classroom management, placement considerations, goals, and the effective use of ancillary services for the emotionally disturbed and/or socially maladjusted. Emphasis on the understanding of maladaptive behavior through principles of learning and behavior. Prerequisite: 400 or concurrent enrollment or consent of department chairperson.

402-2 Problems and Characteristics of the Mentally Retarded Child. Emphasizes a developmental approach to understanding and dealing with children who have mildly and moderately reduced mental abilities. Considers historical, theoretical, and practical factors pertinent to mental retardation. Prerequisite: 400 or concurrent enrollment or consent of department chairperson.

403-3 Problems and Characteristics of the Gifted Child. Designed to help teachers in the identification of and programming for gifted and talented children. Prerequisite: 400 or concurrent enrollment or consent of department chairperson.

404-3 Problems and Characteristics of Learning Disabled Children and Youth. Behavioral, emotional, physical, and learning characteristics of children and youth with learning disabilities. Emphasis on receptive and expressive modalities for learning; theories dealing with causes and management. Prerequisite: 400 or concurrent enrollment or consent of department chairperson.

405-3 Education of the Preschool Handicapped Child. Emphasizes classroom procedures for enhancing development in children with developmental delay. Covers organization of the curriculum, goal setting, task analysis, lesson planning, and classroom organization. Practicum with preschool handicapped children is an integral part of this course. Prerequisite: 400, concurrent enrollment, or consent of chairperson.

406-2 Characteristics of the Severely Handicapped Child. Provides the basic developmental, psychological, intellectual, and curricular background essential to students wishing to teach in this area of special education. The course requires 30 hours of lecture and 15 hours of lab with severely handicapped children. Students will be video-taped for self-critique and progress evaluation. Prerequisite: 400 or consent of department chairperson.

409-1 to 6 Cross-Cultural Studies. Seminar and/or directed independent study concerned with socio-cultural variables affecting the personality characteristics and educational needs of children who are diagnosed as mentally, emotionally, or psychically handicapped. Prerequisite: 400 or consent of instructor and department chairperson.

410-2 International Aspects of Services for the Handicapped. Focus on innovative ideas and practices in other countries in preschool programs, special education, rehabilitation, vocational training and employment, recreation, community living, organizational structures, and legislation.

411-3 Assessment in Special Education. Designed to develop competency in students in the administration, scoring and interpretation of educational tests including the integration of findings from a number of tests. A laboratory fee of $5 is required to cover the cost of materials. No textbook is required. Prerequisite: 400; Curriculum, Instruction, and Media 312, 315; Education 304c. Prerequisite or concurrent enrollment in 401, or 402 or 404.

412-3 Assessment and Remedial Planning for the Preschool Handicapped Child. An introduction to the assessment of preschool handicapped children including the specifics of screening, tests used by the classroom teacher and observational procedures. A charge of $5 for testing materials is required. No textbook is required. Prerequisite: 400 and 405.

414-3 Assessment and Planning for Youth in Special Education. Testing, evaluation, and program development for adolescent students with special learning problems. Purchase of testing materials costing approximately $10 is required. Prerequisite: 400 and consent of department.

417-3 Methods and Materials for Teaching Behaviorally Disordered Children and Youth. Psychoeducational procedures used in teaching the behaviorally disordered children and youth. Includes field trips, meetings with parents, and visits by resource persons from schools and agencies. Prerequisite: 411, concurrent enrollment in Education 312 and Education 400.

418-3 Methods and Materials for Teaching Educable Mentally Handicapped Children and Youth. Psychoeducational strategies used in teaching the educable mentally handicapped children and youth. Prerequisite: 411, concurrent enrollment in Education 312 and Education 400.
419-3 Methods and Materials for Teaching Learning Disabled Children and Youth. Psychoeducational strategies used in teaching children and youth with learning disabilities. Prerequisite: 411, concurrent enrollment in Education 312 and Education 400.
421-3 Methods and Materials for Teaching Pre-School or Elementary Severely Handicapped Learners. Emphasis on methods of teaching those with severe handicaps. Minimum of one video-taping session, and individualized tutoring, are required of all participants. Prerequisite: 411 or 412; concurrent enrollment in Education 312 and Education 400.
423-2 General Procedures in Special Education. Deals with methods, materials and instructional management practices common to the instruction of the handicapped. Prerequisite: 411; concurrent enrollment in Education 312.
425-2 Home-School Coordination in Special Education. Consideration of the techniques used in parent interviews, conferences, and referrals by school personnel with parents of handicapped children. Prerequisite: 400 or consent of department chairperson.
430-3 Work-Study Programs for Handicapped Adolescents to Age 21. Deals with modifications of and additions to school programs to insure that they are appropriate to the needs of the mildly handicapped adolescent. Includes detailed coverage of joint work-study programs as preparation for vocational adequacy. Prerequisite: 400 and one of 401, 402, 403, or 404.
431-2 Work-Study Programs for Severely Handicapped Adolescents to Age 21. Deals with program offerings in public school special education programs designed to prepare the severely handicapped adolescent for maximum vocational adequacy. Prerequisite: 400 and one of 401, 402, 404, or 406; concurrent enrollment in Education 312.
456-4 (2, 2) Music for Exceptional Children. (See Music 456.)
490-1 to 5 Readings in Special Education. Study of a highly specific problem area in the education of exceptional children. Open only to selected seniors. Prerequisite: 400 and consent of department chairperson. Elective Pass/Fail.
500-3 Special Education Research Problems.
502-2 Special Education Research Paper.
505-3 The Pre-School Handicapped Child.
511A-3 Advanced Assessment and Remedial Planning in Special Education.
511B-3 Advanced Remediation in Special Education.
512-3 Advanced Assessment and Remedial Planning for the Preschool Handicapped Child.
513-3 Organization, Administration, and Supervision in Special Education.
514-3 Simulation of Administrative Tasks in Special Education.
515-2 Itinerant and Resource Teaching in Special Education.
517-2 The Atypical Child and Social Agencies.
518-1 to 6 Workshop in Special Education.
550-3 Behavior Management of Exceptional Children and Youth.
580-3 Master's Seminar: Issues and Trends in Special Education.
582-2 Post-Master's Seminar: Remedial Models in Special Education.
583-2 Post-Master's Seminar: Program Coordination in Special Education.
584-2 Doctoral Seminar: Research in Special Education.
585-2 Doctoral Seminar: Evaluation in Special Education.
586-1 to 4 (1, 1, 1, 1) Proseminar in Special Education.
590-1 to 5 Readings in Special Education.
591-2 to 5 Independent Investigation.
594-1 to 6 Practicum in Special Education.
600-1 to 32 (1 to 16 per semester) Dissertation.
601-1 to 12 per semester Continuing Research.

Speech Communication (Department, Major, Courses)

The Department of Speech Communication provides the undergraduate with a substantial background in the history, theory, and application of verbal and nonverbal communication. The program specializations are designed to develop the language and personal skills for professional, artistic, and instructional careers in human communication; to explore the social and cultural implications of human interaction; to compare the aesthetic and instrumental nature of oral communication; and to provide catholic and diverse opportunities for the study of and training for communication as personal perception and expression.

A graduate of Southern Illinois University at Carbondale with a major in speech communication will be expected to demonstrate the following competencies: proficient communication skills within large and small groups, a considerable ability to read and interpret the printed page, demonstrably well-practiced interpersonal skills, and an understanding of the theories and principles which are basic to the speech discipline.

These competencies may be demonstrated by completing any of the major programs described below and by receiving no grade lower than *C* in the following courses which are required in all specializations except public relations: GSC 200, GSD 152 or 153, Speech Communication 221 or 280, 230, 261, 262, 325, and 370. Under certain circumstances, a student may elect to demonstrate a competency by passing a proficiency examination administered by the Department of Speech Communication.

Bachelor of Science Degree, College of Communications and Fine Arts

SPEECH COMMUNICATION MAJOR — COMMUNICATION ARTS AND STUDIES SPECIALIZATION

General Studies Requirements	45
Must include GSC 200, GSD 152 or 153	
Requirements for Major in Speech Communication	36
Speech Communication 221, 230, 261, 262, 325, 370	18
Electives in Speech Communication which must include at least three 400-level courses	18
Electives	39
Total	120

SPEECH COMMUNICATION MAJOR — ORAL INTERPRETATION SPECIALIZATION

General Studies Requirements	45
Must include GSC 200, GSD 152 or 153, GSE 103d (2 hours), GSB 202 strongly recommended	
Requirements for Major in Speech Communication	56
Speech Communication 221, 230, 261, 262, 325, 370, 390-3, 433, 471, 472, 474, 491-3	36
English literature courses	12
Courses to be determined in consultation with adviser	
Theater 207, 213, 217	8
Electives	19
Recommended that electives be in speech communication, music, film, sociology, psychology, English, theater	
Total	120

SPEECH COMMUNICATION MAJOR — PUBLIC RELATIONS SPECIALIZATION

The public relations specialization is an interdisciplinary program designed with the assistance of the Public Relations Society of America.

Building upon the liberal arts and sciences required of all students in the general studies program, the curriculum provides fundamental knowledge in social science, business management, marketing, political science, and research methods, and in communication through all types of media. The broad coverage of these disciplines provides a sound preparation for careers and graduate studies in public relations and the several areas included. Through flexibility in the choice of restricted electives, the students are able to select courses in the field of their special interests in preparing for graduate work and specific career goals.

Membership in the Raymond D. Wiley Chapter of the Public Relations Student Society of America provides opportunities for internships, field trips, job placement, involvement in on- and off-campus public relations projects, and association with the professional practitioners.

The active internship program enables selected students to obtain work-study experiences under the supervision of qualified practitioners in industrial, educational, and non-profit organizations. In most cases, academic credit is earned, and the student receives a stipend to defray living expenses.

General Studies Requirements 45
Must include GSB 202, 212, GSD 152 or 153, Economics 214 substitutes for GSB 211
Requirements for Major in Speech Communication 71
Speech Communication 261, 280, 326, 381, 382, 480, 481 22
Journalism 300, 310, 311 and 312 12
Radio-Television 300m 4
Psychology 307 3
Administrative Sciences 304 3
Marketing 304, 363 6
Political Science 340 3
Graphics 3
Design 322 or Journalism 315
Restricted electives 15
Selected from speech communication, journalism, radio-television, administrative sciences, marketing, finance, economics, political science, psychology, sociology, English. Some recommended courses are: Speech Communication 390 (may be repeated to a total of 3 hours), 358, 362, 451: Journalism 370, 372, 374, 391; 461, 476; English 290, 390 or other approved English writing courses.
Internship: Speech Communication 490a-1 to 6. The internship practicum in public relations is open to selected students with consent of the instructor. Hours taken here apply against 15 hours of restricted electives or other substitutions approved by the instructor.
Typing: Proficiency of 30 words per minute required.
Electives 4
Total 120

Bachelor of Science Degree, College of Communications and Fine Arts or College of Education

SPEECH COMMUNICATION MAJOR — COMMUNICATION EDUCATION SPECIALIZATION

General Studies Requirement 45
Must include GSB 202, 212, GSC 200, 203, GSD 152 or 153, GSE 201
Requirements for Major in Speech Communication 48
Speech Communication 221, 230, 261, 262, 325, 370, 432 21
Mass media courses selected from the following: Radio-Television 300m, 300p, 467; Journalism 300, Speech Communication 452 6
Theater 217 and 354 or 402a 6
15 hours of special electives in Speech Communication approved by the departmental adviser or an approved minor 15
Professional Education Requirements (including Speech Communication 431) 27
See Teacher Education Program, page 77.
Speech Communication 230 and 390 substitute for Education 312.
Total 120

Bachelor of Arts Degree, College of Liberal Arts

General Studies Requirements 45
Must include GSC 200 and GSD 152 or 153

Supplementary College Requirements (See page 84.) ..... (4) + 8-14
Requirements for Major in Speech Communication 36
Speech Communication 221, 230, 261, 262, 325, 370 18
Speech Communication electives which must include at least three 400-level speech communication courses 18
Electives 25-31
Total 120

Minor:

A 15-hour minor in speech communication should be planned in consultation with the chairperson of the department or the undergraduate adviser. Students electing speech communication as a minor in a teacher education program must include Speech Communication 431.

Courses

Courses in speech communication are listed according to numerical order. However, the second digit in the course number indicates its locus in the speech communication curriculum, as follows:

00-09 Research Methods
10-19 Rhetoric and Criticism
20-29 Public Speech Communication
30-39 Speech Education
40-49 Language Behavior
50-59 Political Speech Communication
60-69 Interpersonal Speech Communication
70-79 Oral Interpretation
80-89 Organizational Speech Communication
90-99 Applied and Special Studies

100-3 Speech Communication Workshop. A workshop in debate, oral interpretation or public speaking for secondary school seniors interested in intensive study in one or more of these areas.
221-3 Advanced Public Speaking. The components of effective speech, with actual preparation and presentation of several types of speeches. Prerequisite: GSD 153 or consent of instructor.
230-3 Introduction to Speech Communication Theory. Introduction to speech communication theory. Examination of history and theoretical issues as a basis for understanding applied communication areas.
258-1 to 30 Work Experience. Credit given for work experience by students enrolled in the Department of Speech Communication. Such credit is granted upon approval of the undergraduate adviser.
261-3 Small Group Communication. Introduction to small group communication and the small group process. Special emphasis given to problem-solving discussion groups.
262-3 Interpersonal Communication II. Focuses on face-to-face interaction and intergroup relations by combining information about human communication and practice in communication. Utilizes the laboratory method for learning to establish and develop communicative relationship with others. Prerequisite: GSD 152 or consent of instructor.
280-3 Business and Professional Communication. A survey of communication theory pertaining to business and professional settings. Provides practice applicable to interviews, conference briefings, and presentation techniques. Prerequisite: GSD 152 or 153.
310-2 Speech Composition. Rhetorical techniques of public address. Two major speeches prepared, with every possible refinement. Prerequisite: 221.
325-3 Argumentation and Debate. Through the study of argument, evidence, reasoning and oral advocacy this course seeks to insure competence in the ascertainment of truth by investigation and research and the establishment of truth through proof. The ultimate rationale for the course is the discovery and support of intelligent decisions.
326-3 Persuasion. The means of influencing individuals and groups through communication. Emphasizes the shaping of other's values, beliefs, attitudes and behavior primarily by the spoken word. Provides theoretical information about and practice in persuasive speaking, for sources and targets of persuasion.
340-3 Language and Speech: Introduction. Introduction to the language of speech, an interdisciplinary approach to the learning and use of language. The structure of speech in-

teraction in relation to participants, situation and functions of communication. Emphasis on intercultural, linguistic, psychological, sociological and developmental perspectives on language in speech communication.

341-3 Introduction to Intercultural Communication. (Same as Linguistics 341.) Examination of the elements and structure of intercultural and transracial communication in the United States. Designed to analyze and describe the interaction between social perception and expression as manifest in verbal and nonverbal behavior. Emphasis on the functional communication of minority groups. Prerequisite: 262 or GSD 152 or consent of instructor.

358-3 Political Campaigns and Elections. (See Political Science 318.) Elective Pass/Fail.

361-3 Nonverbal Communication. Nonverbal factors that influence the communicative interaction among persons. Review research findings and conduct projects germane to nonverbal communication. Readings, discussions, and research projects. Prerequisite: 262 or consent of instructor.

362-3 Communication and Social Process. Introduction to the phenomenology of human communication and social process. Analysis and description of interpersonal communication in the development and operation of human communities. Special emphasis is given to the nature of persons, consciousness, and communication exchange in society.

370-3 Oral Interpretation II. Theory and practice in advanced interpretation techniques, with emphasis on the student as performer. Prerequisite: GSC 200 or consent of the instructor.

381-3 Public Relations Policy and Practice. Philosophy, principles, policies, and practice of public relations. Historical review of industrial, governmental, and agency PR; managerial and communicative functions; internal and external publics. Lecture, audiovisual media, and guest public relations practitioners. Prerequisite: junior standing.

382-4 Research Methods in Public Communication. An introductory survey of methods and techniques of audience analysis and public opinion research. Designed especially for public relations specialization. Instruction in the design of research tools, sample selection, interviewing, and the use of the computer for data analysis.

390-1 to 6 Applied Communication. Supervised individual and group performance in various communication arts. Emphasis on the practical application of verbal skills. May be repeated for credit. A maximum of six hours may be counted toward a speech major; a maximum of six hours toward degree requirements. Prerequisite: consent of instructor and department adviser.

401-3 Communication Theories and Models. An introduction to theory construction and model utilization in communication research. Critical analysis of existing communication theories in the social sciences as a basis for generating new models. Emphasis on the heuristics nature and function of the language/speech act paradigm in communication studies.

411-3 Rhetorical Criticism. Designed to develop the student's ability to criticize public discourse, including speeches, written works, and the mass media.

421-3 to 9 (3, 3, 3) Studies in Public Address. Critical studies of speakers and issues relevant to social and political movements dominants in national and international affairs. A lecture, reading, and discussion course. Students may repeat enrollment to a total of nine hours. Prerequisite: for undergraduates, 411 or consent of instructor.

430-3 Speech in Elementary Schools. Survey of normal speech development with emphasis on the elementary school years. Concept of speech as skill to basic reading, writing, and spelling. Psychological and sociological variables affecting language as it relates to school learning. Speech experiences supportive of the child's linguistic, intellectual, and social development.

431-3 Speech in Secondary School. Philosophy of speech education, and effective teaching of speech through curricular and extra-curricular work. Prerequisite: twelve hours of speech.

432-3 Secondary School Forensic Program. Designed to evaluate and plan the proper role of forensics in the secondary school and to prepare the students for their tasks as teachers and administrators in that program. Not for graduate credit. Prerequisite: 325, GSC 200.

433-3 Creative Drama for Children. Materials, techniques, and procedures for conducting sessions in informal drama with emphasis upon its contribution to the total growth and development of the child. Includes lectures, observations, student participation. Prerequisite: concurrent enrollment in 490f-1 or consent of instructor.

435-3 to 6 (3, 3) Topics in Creative Drama. An exploration of advanced theories and techniques for conducting sessions in informal drama. Topics vary and are announced in advance. Students may repeat enrollment in the course, since the topics change. Lecture, discussion, class projects, school visitations.

440-3 Language Behavior. Study of linguistic approaches to speech communication based on behavioral determinants such as culture, history, speech community, value orientations, social perception and expression, and the nature and function of interpersonal transaction. Prerequisite: 340 or consent of instructor.

441-3 Intercultural Communication. Application of semiotic and cultural theories to language behavior. Emphasis on speech communication as an approach to the study of intercultural communication. Prerequisite: 320 or consent of instructor.

442-3 Psychology of Human Communication. Nature, development, and functions of verbal and nonverbal behavior; application of psychological theories and research to the communication process in individuals and groups. Emphasis on the systemic nature of communicative behavior.
443-3 General Semantics. Formulations from the works of Alfred Korzybski and from neo-Korzybskian interpretors are presented. General semantics is discussed as an interdisciplinary approach to knowledge. Relationships are made to contemporary problems in human affairs.
444-3 Language of Young Children. For teachers of young children and students of language. Theory of the developmental of language with attention to maturational and environmental correlates. Study of children's spoken language encoding and decoding behavior in relation to development of secondary skills reading and writing and to general cognitive development.
446-4 Sociology of Language and Signs. (See Sociology 451.)
451-3 Political Communications. (Same as Political Science 418.) A critical review of theory and research which relate to the influence of communication variables on political values, attitudes, and behavior. Prerequisite: 358 or consent of instructor.
452-3 Interpersonal Communication and the Mass Media. A review, synthesis, and analysis of communication theory and research which deals with the process, interactive mature of interpersonal and mass channels of communication. Prerequisite: 401 or consent of instructor.
460-3 Small Group Communication: Theory and Research. A critical examination of small group theory and research in speech communication. Emphasis is given to the development of principles of effective communication and decision-making in the small, task-oriented groups. Prerequisite: 261 or consent of instructor.
461-3 Laboratory in Interpersonal Communication I. Interpersonal communication is studies as human encounter. The philosophy and theoretical bases of existential phenomenological approaches to human communication are discussed. Projects are evolved by small groups that contribute to the understanding of human communication.
462-3 Laboratory in Interpersonal Communication II. Various theories of social and cultural change are explored. The role of interpersonal communication in the development of human consciousness is explicated. Projects are evolved by small groups that examine values and priorities of human nature and cultural nature.
465-3 Philsophy of Language. (See Philosophy 425.)
471-3 Prose Fiction in Performance. Study of prose fiction through analysis and individual performance. Includes scripting techniques for chamber theater. Prerequisite: 370 or consent of instructor.
472-3 Poetry in Performance. The study of poetic form through analysis and performance. Prerequisite: 370, GSC 200 or consent of instructor.
474-3 Readers Theatre. A study of the theory and practice of Interpreters Theatre, with special emphasis on adapting and compiling scripts for group performance in Readers Theatre. Prerequisite: 370 or consent of instructor.
475-3 Interpreters Theatre Production. Theory and practice in presentational staging of prose, poetry, and drama. Includes directing and performance experience in Readers Theatre and Chamber Theatre. Prerequisite: 471 or 474 or consent of instructor.
480-3 Studies in Organizational Communication. Study of communication systems and behavior within organizations. Demonstrates the relevance of communication to management operations, networks, superior-subordinate relations, production, employee morale, and organizational climates through the study of theory and research.
481-3 Public Relations in Cases and Campaigns. Advanced course in selected case studies provided by the Public Relations Society of America and other sources. Student groups design actual or simulated public relations campaigns through the four steps of research, planning, communications, and evaluation. Prerequisite: 381.
490-1 to 6 Communication Practicum. A supervised experience utilizing communication skills in a professional or career setting. Emphasis on the development of applied performance skills in the following areas: **(a)** Public Relations, **(b)** Communication Studies, **(c)** Interpersonal Communication, **(d)** Oral Interpretation of Literature, **(e)** Forensic Activities, **(f)** Creative Drama, **(g)** Political Communication, **(h)** Organizational Communication, **(i)** Language Behavior, **(j)** Instructional Communication. May be repeated for credit. Undergraduates are limited to a total of six hours and graduate students to a total of three hours to be counted toward degree requirements. Prerequisite: consent of instructor and departmental adviser.
491-1 to 3 Independent Study in Communication. Readings, creative projects, or writing projects focusing on a theoretical study of communication. The independent study should normally be completed in one semester under the tutorial supervision of a faculty sponsor. Not for graduate credit. Prerequisite: twelve hours of speech, consent of instructor and departmental adviser.
492-2 to 8 Workshop in Oral Interpretation. Summer offering concentrating in specialized areas of oral interpretation.

493-3 to 9 (3, 3, 3) Special Topics in Communication. An exploration of selected current topics in communication arts and studies. Topics vary and are announced in advance; both students and faculty suggest ideas. Students may repeat enrollment in the course, as the topic varies.
501-3 Introduction to Speech Communication Research.
502-3 Seminar: Quantitative Communication Research.
503-3 Seminar: Phenomenological Communication Research.
510-3 to 6 (3, 3) Seminar: Rhetoric and Communication.
526-3 Seminar: Studies in Persuasion.
531-3 Seminar: Speech Education.
539-3 Speech Communication at University Level.
540-3 Seminar: Language, Cultural and Semiology.
545-3 Seminar: Semiology and Semiotic Communication.
561-3 to 6 (3, 3) Studies in Small Group Communication.
562-3 Philsophy of Human Communication.
571-3 Theoretical Perspectives in Interpretation.
572-3 Critical Perspectives in Interpretation.
574-3 to 6 (3, 3) Studies in Interpretation.
580-3 to 9 Issues in Organizational Communication and Public Relations.
593-1 to 3 Research Problems in Communications.
598-0 Proseminar in Human Communication.
599-1 to 6 Thesis.
600-1 to 36 (1 to 16 per semester) Dissertation.
601-1 to 12 per semester Continuing Research.

Speech Pathology and Audiology (Department, Major, Courses)

The program in speech pathology and audiology has as its objective the training of qualified personnel to aid people who are speech, language, or hearing impaired. The undergraduate curriculum is broad in scope and gives the student the necessary preprofessional background for the clinical-research program offered at the master's level. Both state and national certification require the master's degree. Students who complete the graduate program at the master's level are qualified for positions in public or private clinics, schools, hospitals, or agencies. Students who complete the graduate program at the doctoral level seek positions with college and universities, research institutes, or governmental agencies.

The Department of Speech Pathology and Audiology is dedicated to developing students for leadership roles in the profession. Students are expected to develop programs that will enhance their individual strengths in light of their vocational goals. The undergraduate program is extremely flexible. This permits students to develop significant concentration areas outside of the department while they are laying the foundation for their graduate education.

Observation and beginning clinical experience is obtained at the undergraduate level through work at the University's clinical center and area clinics, schools, and agencies. The undergraduate program is designed to provide the student with sufficient information and experience to determine the advisability of pursuing a graduate degree. Those students who do not continue in the profession will find themselves well prepared to enter the job market with a broadly based education or pursue graduate work in allied professions.

All students are encouraged to plan programs of study to meet the academic and practicum requirements for the Certificate of Clinical Competence of the American Speech-Language-Hearing Association or the Standard Special Certificate — Certificate in Speech and Language Impaired of the state of Illinois. Planning at the bachelor's level will facilitate completion of American Speech-Language-Hearing Association and State of Illinois certification requirements in conjunction with the master's degree program.

Bachelor of Science Degree, College of Communications and Fine Arts

SPEECH PATHOLOGY AND AUDIOLOGY MAJOR – PREPROFESSIONAL PROGRAM

General Studies Requirements	45
GSA, GSB, GSC	30
GSA: 9 hours minimum from 3 different departments including 115 and 209	
GSB: 10 hours minimum from 3 different departments including 202, 203, 206	
GSC: 9 hour minimum from 3 different departments	
GSD: 101, 117, 107, and 152 or 153	11
GSE: Health and physical education	4
Requirements for a Major in Speech Pathology and Audiology	47
Psychology 211, 301, 305	10
Rehabilitation 406	3
Speech Pathology and Audiology 105, 200, 203, 214, 302, 303, 316, 318, 319, 401, 419, and 493	34
Electives	28
Total	120

Bachelor of Science Degree, College of Communications and Fine Arts or Bachelor of Science Degree, College of Education

A student in the College of Communications and Fine Arts or the College of Education who plans to be a public school speech and language clinician in Illinois, thereby needing to prepare to meet the requirements for the Standard Special Certificate — Certificate in Speech and Language Impaired, should follow the program of course requirements listed above. In addition the requirements for the Teacher Education Program must be met. See Teacher Education Program, page 77.

Courses

100-0 to 1 Speech Clinic: Therapy. For students with speech and hearing deviations who need individual help. Prerequisite: consent of instructor.

104-3 Training the Speaking Voice. For those students who desire to improve their voice and articulation.

105-3 Introduction to Communication Disorders. A general survey course devoted to a discussion of the various problems considered to be speech and hearing disorders with special emphasis on basic etiological classification schemes and their incidence in the current population. Opportunities for directed observation.

200-3 Phonetics. Instruction in the use of phonetic symbols to record the speech sounds of midland American English, with emphasis on ear training, and a description of place and manner of production of these sounds. Program retention course.

203-3 Introduction to Speech-Language and Hearing Science. An introduction to the science of general speech including the history of research in the field and significant experimental trends in the future. Open to all students. Program retention course.

214-3 Anatomy and Physiology of the Speech and Hearing Mechanism. Structure and function of the speech and hearing mechanism. Program retention course.

302-3 Phonological Development and Disorders. A general introduction to the phonological development in children on a normative basis. In addition to introducing the student to the classical studies in articulatory development, this course provides a general exposure to the implications of classical phonetic theory, coarticulatory theory and distinctive features theory as a framework for therapy and research. Prerequisite: 3.0 grade point average in program retention courses or concurrent enrollment and consent of chairperson.

303-3 Language Development and Disorders. Presentation of the progressive stages of language development in the areas of syntax and semantics. The student is acquainted with normal developmental processes and introduced to identification and remediation of therapeutics with children from ages three to twelve. Theoretical considerations and terminology related to traditional structural and transformation grammars are introduced as tools for interpreting the acquisition processes. Prerequisite: 3.0 grade point average in program retention courses or concurrent enrollment and consent of chairperson.

316-3 Introduction to Audiology and Audiometry. Basic orientation to the professional field of audiology, its history and its goals; basic acoustics, the phylogeny, anatomy and physiology of the human ear, and significant pathologies of the ear. Prerequisite: 3.0 grade point average in program retention courses or concurrent enrollment and consent of chairperson.

318-3 Parameters of Voice. Physio-acoustic parameters of voice quality variables evidenced in verbal communication. Lectures and demonstrations emphasize basic information necessary to study for the treatment of voice disorders. Prerequisite: 3.0 grade point average in program retention courses or concurrent enrollment and consent of chairperson.

319-3 Stuttering. Deals with diagnostic and therapeutic techniques for the understanding and treatment of stuttering. Prerequisite: 3.0 grade point average in program retention courses or concurrent enrollment and consent of chairperson.

401-3 Diagnostic Procedures in Communication Disorders. A general introductory course devoted to discussion of the role of the speech and hearing clinician as a differential diagnostician. Special emphasis is placed on correlating information obtained from the oral-peripheral examination, articulation and language evaluation, audiometric and case history information in constructing the initial evaluation report. Prerequisite: 302, 303, and one additional 300-level course or consent of chairperson.

407-2 Communication Disorders: Cerebral Palsy. An introduction to cerebral palsy as a disorder, with an emphasis on etiology, problems, and approaches to therapy. Prerequisite: 105 and 214, or consent of instructor.

408-2 Communication Disorders: Cleft Palate. An introduction to the ontology and teratology of cleft palate, problems of personal and social adjustments, and principles of therapy. Prerequisite: 105, 214, 318, or consent of instructor.

419-3 Communication Problems of the Hearing Impaired. Objectives and techniques for the teaching of lip reading, speech conservation, and auditory training. Prerequisite: 302, 303 and 316, or equivalents and consent of instructor.

420-3 Basic Audiometric Evaluation. Principles and procedures of audiometric evaluation: pure-tone threshold testing; techniques and standards for clinical calibration of the audiometer; clinical masking procedures; materials and procedures for speech audiometry; hearing assessment of infants and children. Prerequisite: 302, 303, and 316 or equivalents or consent of instructor.

428-3 Communication Disorders and the Classroom Teacher. Etiology and therapy of common speech defects. May be taken by all inservice teachers, seniors, and graduate students in education.

431-1 to 6 (1 to 3, 1 to 3) Biofeedback Communication. An investigation into the experimental approaches for the study of the phenomena of speech. Evoked potential and signal averaging techniques, psychophysiological methodology. Laboratory experience with various biofeedback instrumentation, EMG, EEG, temperature ECG, etc. Open to non-majors.

438-2 Problems of Communication and the Process of Aging. Reviews problems of communication related to the aging process and examines relevant diagnostic and therapeutic techniques. For non-majors only. Prerequisite: senior or graduate standing.

491-1 to 4 (1 to 2, 1 to 2) Individual Study. Activities involved shall be investigative, creative, or clinical in character. Must be arranged in advance with the instructor, with consent of the chairperson. Prerequisite: consent of chairperson.

493-1 to 2 (1, 1) Basic Clinical Practice: Principles and Procedures. Supervised clinical practicum in basic theory procedures, diagnostic techniques, and preparation of reports. Prerequisite: 302, 303, and two additional 300-level courses or equivalents and consent of chairperson.

494-1 to 2 (1, 1) Advanced Clinical Practice: Phonological Disorders. Advanced clinical practicum in articulation. Emphasis will be placed on specialized therapy procedures, diagnostic techniques, and preparation of reports. Prerequisite: 302 and 493 or equivalents and consent of chairperson.

495-1 to 2 (1, 1) Advanced Clinical Practice: Language Disorders. Advanced clinical practicum in language. Emphasis will be placed on specialized therapy procedures, diagnostic techniques, and preparation of reports. Prerequisite: 303 and 493 or equivalents and consent of chairperson.

496-1 to 2 (1, 1) Advanced Clinical Practice: Hearing Disorders. Advanced clinical practice in hearing disorders. Emphasis will be placed on rehabilitative procedures in audiology. Prerequisite: 316 and 493 or equivalents and consent of chairperson.

497-1 to 2 (1, 1) Advanced Clinical Practice: Hearing Diagnostics. Advanced clinical practice in hearing diagnostics. Emphasis will be placed on diagnostic techniques used in the preparation of basic and advanced audiological reports. Prerequisite: 316, 420, and 493 or equivalents and consent of chairperson.

498-1 to 2 (1, 1) Advanced Clinical Practice: Voice Disorders. Advanced clinical practicum in voice disorders. Emphasis will be placed on specialized therapy procedures, diagnostic techniques, and preparation of reports. Prerequisite: 318 or equivalent and consent of chairperson.

499-1 to 2 (1, 1) Advanced Clinical Practice: Fluency Disorders. Advanced clinical practicum in fluency disorders. Emphasis will be placed on specialized therapy procedures, diagnostic techniques, and preparation of reports. Prerequisite: 319 or equivalent and consent of chairperson.
500-3 Research Design in Speech Pathology and Audiology.
503-3 Laboratory Instrumentation in Speech-Language and Hearing Science.
505-3 Phonological Acquisition.
507-3 Language Acquisition.
510-3 Stuttering: Behavior Assessment and Therapy.
512-3 Voice Disorders.
517-3 Seminar: Language Disorders in Children.
521-3 Advanced Audiology II.
525-3 Amplification for the Hearing Impaired.
526-3 Industrial and Community Hearing Conservation.
528-3 Seminar: Physio-and Psycho-Acoustics of the Ear.
529-3 Seminar: Experimental Audiology.
533-3 to 6 (3, 3) Seminar: Speech-Language Science and Experimental Phonetics.
536-3 Seminar: Administration of Speech and Hearing Programs.
540-3 Neuro-Anatomical and Neuromuscular Disorders of Communication.
541-3 Neuropsychological Disorders of Communication.
544-3 Seminar: Phonological Disorders in Children.
548-3 Seminar: Stuttering Behavior — Theory and Research.
550-1 to 6 (1 to 3, 1 to 3) Professional Training Seminar.
590-1 to 4 (1 to 2, 1 to 2) Readings in Speech-Language Pathology and Audiology.
593-1 to 3 Research Problems in Speech-Language Pathology and Audiology.
598-1 to 3 Internship in Speech-Language Pathology and Audiology.
599-1 to 6 Thesis.
600-1 to 32 (1 to 16 per semester) Dissertation.
601-1 to 12 per semester Continuing Research.

Technical Careers (School, Program, Courses)

The Bachelor of Science degree in the School of Technical Careers is specifically designed for the student who has entered an educational or career path for which there is no existing baccalaureate program. It accommodates those who have begun or completed associate degree occupational programs in any post-secondary institution, by allowing full transfer of credit; those who wish to turn military training into viable civilian credentials; and those with extensive occupational experience who wish to upgrade their educational status. Provision is made to recognize many forms of previous educational and occupational experience for credit toward the degree. The program is designed to build upon a person's education and experience by making possible additional career preparation and general education at the baccalaureate level.

Because each student's baccalaureate program is completely individualized, there is no list of course requirements applicable to all students. Each student designs a program of study, drawing on the many resources of the University, in consultation with a School of Technical Careers baccalaureate adviser. The program of study is formalized in a learning contract.

Persons who wish to enter the program must meet the following requirements:
1. Have completed at least two semesters of post-secondary education.
2. Have fewer than 90 semester hours passed.
3. Have a learning contract approved by the director.

A student is considered admitted to the program only after the learning contract has been approved. Once admitted, students are expected to maintain close contact with their adviser in the program.

To complete program requirements students must:
1. Complete the requirements in the learning contract.
2. Be enrolled full-time in the program for at least two semesters.
3. Have at least six hours of credit for work experience.

Students must also fulfill all University requirements including General

Studies, hour requirements, residence requirements and grade point average requirements. The capstone program is available to qualified majors in the baccalaureate program of the School of Technical Careers. The capstone program is explained in chapter 3.

Persons interested in the program should contact the director, Division of Baccalaureate Studies, School of Technical Careers, for details concerning advisement, program requirements, the learning contract, and the many educational possibilities available through this unique program.

The following general education and technical courses are taught within the School of Technical Careers. They are open to students in associate and baccalaureate degree programs in the School of Technical Careers as well as to students in other academic units.

Courses

101-2 Business Correspondence. To equip students for effective letter writing so that they can compose letters quickly, easily, and efficiently is a basic goal of this course. It will help the student form good habits that will facilitate adaptability in the business world. The student will strive to devlop naturalness, courtesy, tact, honesty, and a positive attitude in the construction and use of business correspondence. Lecture and individualized instruction two hours.

102-2 Technical Writing. To successfully complete this course, students should be proficient in particular writing techniques (technical description, definition, classification, abstracting, etc.) and follow through a library research project in their individual technical fields. Lecture two hours and individualized instruction.

103-2 Fundamentals of Mathematics. This course is pre-technical level intended for those who have had no high school algebra or whose scores on the School of Technical Careers Mathematics Placement Test indicate a need for it. The course will enable the student to perform the fundamental operations with integers, common fractions, and decimals; to solve problems involving ratio, proportion, and percent; to use measurement concepts and geometric formulas to compute areas, volumes, and perimeters; and to perform basic algebraic operations. Semi-programmed instruction. Four hours per week.

105-4 (2, 2) Technical Mathematics. Will enable the student to solve problems within the context of engineering technologies. **(a)** Emphasizes the use of algebraic equations and geometric relationships and formulas. Lecture-discussion, four hours per week for eight weeks. **(b)** Emphasizes the application of trigonometric relationships to problems in applied technologies. The use of electronic calculators is encouraged when appropriate. Lecture-discussion, four hours per week for eight weeks. Prerequisite: one year of high school algebra or STC 103.

107-4 (2, 2) Applied Physics. Places emphasis on basic and applied physics at a level consistent with technical education objectives. The student will learn laws and principles and solve problems pertaining to **(a)** mechanics and the structure of matter, **(b)** heat and electricity. Lecture three hours. Laboratory problem solving, testing, demonstrations two hours. Prerequisite: high school algebra or equivalent.

108-2 Chemistry of Fuels and Lubricants. The student will demonstrate the ability to analyze fuels and lubricants and detect impurities and contaminates. (Lecture two hours, Laboratory three hours. Eight weeks.)

115-5 (2, 3) Introduction to Chemistry. **(a)** Inorganic. The student will study the structure of matter, including a survey of common elements and compounds and the changes during chemical reactions, and will also study inorganic bases, salts, solutions, the periodic tables, equation balancing, and metric tables. (Lecture three hours. Laboratory two hours. Eight weeks.) **(b)** Biological. The student will study the chemistry of organic compounds, carbohydrates, proteins, and lipids relating them specifically to body functions. The student will also study the chemistry of digestion, metabolism, respiration, blood enzymes, hormones, and vitamins. (Lecture four hours. Laboratory three hours. Eight weeks.) Must be taken in a, b sequence.

118-2 Applied Calculus. Upon successful completion of this course, the student will be able to find derivatives and integrals of algebraic expressions, and will use this working knowledge of calculus as a tool to solve technical problems in the mechanical, civil, and electrical-electronic fields; to converse intelligently with engineers and scientists who speak the language of calculus; and to read technical articles written in that language. Lecture-discussion two hours. Perequisite: 105 or Mathematics 111.

141-3 Introduction to Physiology and Human Anatomy. The student will survey the functions and structures of the nine basic body systems: digestive, respiratory, skeletal, muscular, excretory, reproductive, endocrine, circulatory, and nervous. Lecture three hours.

153A-2 Oral Reporting. Successful completion of this course equips the student to construct and execute effective informative oral communications, recognize and use basic methods of logical organization, make a logical and coherent oral progress report, and take a more positive role in the world of business and industry. Lecture and individualized instruction, four hours per week. Eight weeks.
153B-2 Conference Methods. Upon successful completion of this course, the student will be able to identify and use basic problem solving methods, take a positive role in a typical business conference, and effectively manage the mechanics of dyadic and public oral communications within the typical business framework. Lecture, individualized instruction, and special projects, four hours per week. Eight weeks.
199-1 to 10 Individual Study. Provides first-year students with the opportunity to develop special program of studies to fit a particular need not met by other offerings. Enrollment provides access to the resources and facilities of the entire institution. Each student will work under the supervision of a sponsoring staff member. Prerequisite: approval of the sponsor, program supervisor, and division chairperson.
200-3 Primary Flight Theory. Prepares the beginning aviation student for the FAA Private Pilot Written Examination. Consists of instruction in aerodynamics, FAA regulations, primary navigation, use of computer, weather, and radio navigation.
201-2 Flight — Primary. Prepares the beginning student in flight to pass the practical examination (flight test) for the Private Pilot Certificate. Consists of 45 hours of flight training, which includes 30 hours of dual flight instruction, five of which is in a simulator; and 15 hours of solo flight. Each training flight is also preceded by a briefing by the instructor and a post-flight critique. This course carries substantial charges which may change from time to time. For exact charges contact the Air Institute and Service, Southern Illinois Airport.
202-2 Flight — Basic and Intermediate Theory. Continuation of ground school above the primary level. Course consists of 32 hours of classroom instruction in Federal Aviation Regulations pertaining to operations relating to commercial flight, aerodynamics, safety, weather, and the safe operation of aircraft.
203-1 Flight — Basic. Beginning course in preparation for the Commercial Certificate. Course consists of 50 hours of flight training. Includes pre-flight briefing and post-flight critique by the flight instructor. Of the 50 hours, ten hours are dual flights and 40 hours are solo flights. Includes dual night flights and 17 hours of solo cross-country. This course carries substantial charges which may change from time to time. For exact charge contact the Air Institute and Service, Southern Illinois Airport.
204-1 Flight — Intermediate. Continuing preparation for the Commercial Certificate. consists of 50 hours of flight training. Includes preflight and post-flight briefing by instructor. Includes ten hours of dual flight instruction, five hours of night flights, 15 hours of solo cross-country, and 20 hours of solo practice on advanced maneuvers.
205-2 Flight — Instrument Theory. Course is directed to the theory of flight by instrument. Consists of thirty-two hours of classroom instruction in Federal Aviation Regulations pertaining to instrument flight, navigation by radio aids, aviation weather, and function, use, and limitations of instruments required for instrument flight.
206-4 Flight — Instrument and Advanced. This flight course will complete requirements for the Commercial Certificate, and will consist of 45 hours. Included in the 45 hours are 20 hours of instrument flight instruction in an airplane, 10 hours in an instrument simulator, 10 hours dual on flight maneuvers, and five hours of solo practice on maneuvers required to pass an FAA commercial flight test. This course carries substantial charges which may change from time to time. For exact charges contact the Air Institute and Service, Southern Illinois Airport.
207-1 Flight — Multi-Engine Operations. Prepares the student for the FAA Multi-Engine Rating (airplane). Includes ten hours of flight training in multi-engine aircraft; and ten hours of individual ground instruction. This course carries substantial charge which may change from time to time. For exact charges contact the Air Institute and Service, Southern Illinois Airport.
210-4 (2, 2) Job Orientation and Analysis. **(a)** Special instructional sessions offered on personality, clothing, job application, and professional ethics. Preparation of a portfolio consisting of a personal data sheet, an analysis of prospective employing firms, sample letters of application, and an acceptance or refusal. Practice in being interviewed by representatives of business and industry. **(b)** Students will be required to discover their interests in career opportunities, to explore these fields, and to discover job opportunities in their interest areas. Lecture four hours. Need not be taken in sequence.
215-6 (3, 3) Drafting Graphics. Use of drafting instruments, development of lettering and linework; geometric construction, orthographic projections, sections, reflected plans, pictorial drawings, perspective, shades and shadows, and their adaption to print reading and production. **(a)** Instruments, lettering, linework, geometric construction, orthographic projections, sections, reflected plans, shades and shadows, non-perspective pictorial drawings. One hour lecture, five hours lab. Taken concurrently with Interior Design 231. **(b)** Perspective drawing methods, both interior and exterior with emphasis on interior

perspectives including Klok Board, direct measurement, Lockard freehand perspective, geometric relationships, and shades and shadows and reflections in perspective drawings. One hour lecture, five hours laboratory. Must be taken in a,b sequence.

258-1 to 30 Work Experience Credit. Credit granted for job skills, management-worker relations and supervisory experience for past work experience while employed in industry, business, the professions, or service occupations. Credit will be established by departmental evaluation.

259-1 to 60 Occupational Education Credit. A designation for credit granted for past occupational educational experiences related to the student's educational objectives. Credit will be established by departmental evaluation.

299-1 to 16 Individual Study. Provides students with opportunity to develop a special program of studies to fit a particular need not met by other offerings. Enrollment provides access to the resources and facilities of the entire institution. Each student will work under the supervision of a sponsoring staff member. Prerequisite: approval of the sponsor, program supervisor, and division chairperson is required.

300-2 Flight-Instructor (Airplane). Prepares the commercial pilot for an FAA Flight Instructor Certificate. Includes 20 hours of dual flight training and 40 hours of specialized ground instruction. This course carries substantial charges which may change from time to time. For exact changes contact the Air Institute and Service, Southern Illinois Airport.

301-1 Flight-Instructor (Airplane-Multi-Engine). This course consists of five hours of dual flight instruction and 10 hours of classroom instruction. Prepares the holder of a flight instructor certificate for the addition of the multi-engine flight instructor rating. This course carries substantial charges which may change from time to time. For exact charges contact the Air Institute and Service, Southern Illinois Airport.

302-1 Flight-Instructor (Airplane Instrument). Designed to prepare the flight instructor to teach instrument flying, and to acquire the Instrument Flight Rating. Course consists of ten hours of dual flight instruction and 15 hours of classroom instruction. This course carries substantial charges which may change from time to time. For exact charges contact the Air Institute and Service, Southern Illinois Airport.

303-3 Flight Instructor Ground School. This course is designed to aid the student who is obtaining a flight instructor's rating. It will cover principles of teaching as well as practical aspects of teaching flight maneuvers necessary for instruction.

319-1 to 15 Occupational Internship. Each student will be assigned to a University approved organization engaged in activities related to the student's academic program and career objectives. The student will perform duties and services as assigned by the perceptor and coordinator. Reports and assignments are required to be completed by the student. Hours and credits to be individually arranged. Mandatory Pass/Fail.

320-1 to 10 Work Study Internship. Provides work-study students with an opportunity to participate in an on-campus work experience related to their academic program and career objectives. Hours and credits are to be individually arranged. Mandatory Pass/Fail.

321-3 Seminar in Technical Careers. The purposes of this course is to allow those School of Technical Careers baccalaureate students who have had little or no experience within their chosen careers to become acquainted with the current state of the professions to which they aspire. The object is to help students prepare themselves for maximum competitiveness within the job market through awareness of existing job opportunities, knowledge of job requirements, and selection of course work appropriate to meet specifications of available positions.

332-3 Labor-Management Problems. Students will gain a general understanding of the economic situation of which labor-management problems represent a subset. They will develop a perspective on the evolution of labor relations in the United States economy and on how the interaction of labor and management differs throughout the world. The collective bargaining section introduces the student to the techniques of bargaining used by labor and mangement in their ongoing interactions. Lecture three hours.

350-1 to 32 Technical Career Subjects. In-depth competency and skill development and exploration of innovative techniques and procedures used in business, industry, professions, and health service occupations offered through various workshops, special short courses, and seminars. Hours and credit to be individually arranged. Prerequisite: consent of baccalaureate department chairperson and instructor.

370-3 Airport Planning. To acquaint the student with the basic concepts of airport planning and construction, as well as an investigation of various community characteristics and resources.

371-3 Aviation Industry Regulation. A study of the various regulatory agencies of the industry and their functions.

372-3 Airport Management. A study of the operation of an airport devoted to the phases of lighting, fuel systems, field marking, field buildings, hangars, and surrounding community.

373-3 Airline Management. A study of the administrative aspects of airline operation and management including a detailed study of airline organizational structure.

374-3 General Aviation Operations. A study of general aviation operations including fixed base operations (fuel, sales, flight training, charter, etc.), corporate aviation (business aviation, corporate flight departments, executive air fleets, etc.) and the general aviation aircraft manufacturing industry.
375-3 Legal Aspects of Aviation. The student will develop an awareness of air transportation. The course will emphasize basic law as it relates to contracts, personnel, liabilities, and legal authority of governmental units and agencies. Lecture three hours.
380-3 Seminar in Health Care Services. Seminar on the various existing and emerging issues which affect control and implementation of health care services to consumers. Topics include but not limited to manpower, information, technology, materials, financing, and data utilization.
381-3 Health Care Management. A study of the principles of effective management techniques including planning, decision making, organizing, budgeting, communication, and direction.
382-3 Health Economics. An analysis of the economics of health care in the United States and its effect on society and the health care profession.
383-3 Data Interpretation. A course designed for the beginning student in health care services or aviation management to examine data use in their respective professions. Emphasis will be placed upon an understanding of the basic principles and techniques involved with analysis, synthesis, and utilization of data.
384-3 Equipment and Material Management in Health Facilities. Prepares health care administrators with the necessary management tools to assure comfort, safety, and well-being of patients, hospital personnel, and visitors, and to focus their attention on sound maintenance management practices, materials procurement, storage and preservation, records keeping, and the utilities systems needed in a health care facility.
385-3 Fiscal Aspects of Health Facilities. An introduction to the fiscal problems encountered in the administration of health care facilities.
386-3 Fiscal Aspects of Aviation Management. An introduction to the fiscal problems encountered in the administration of aviation facilities.
387-3 Fiscal Aspects of Fire Service. An introduction to the fiscal problems encountered in the administration of fire service facilities.
388-3 Legal Aspects of Health Care. To supply the student an awareness of the legal requirements affecting health care facilities. The course will emphasize the basic law of contracts, consents, records, personnel, liabilities, privacy, and other routine functions. Successful students acquire an understanding of the need for legal counsel. Lecture three hours.
400-1 Flight-Airline Transport Pilot. Prepares the commercial pilot for the FAA Airline Transport Pilot Certificate. Includes 40 hours of ground instruction and 20 hours of flight training in single-engine or multi-engine aircraft. This course carries substantial charges which may change from time to time. For exact charges contact the Air Institute and Service, Southern Illinois Airport. Not for graduate credit.
410-3 Fire Prevention and Inspection. Laws and regulations affecting fire prevention; administering building and fire codes; interpreting building, fire prevention, and state fire marshall codes; and inspection procedures. Not for graduate credit.
411-3 Fire Insurance Rating. Analysis of fire hazards for computing fire insurance rates. Actuarial basis of rating schedules with particular emphasis on the analytic system for measurement of relative fire hazard. Not for graduate credit.
421-1 to 3 Professional Development. Introduces students to the various elements involved in obtaining a position in their chosen career field. Topics included are: personal inventories, placement services, employment agencies, interviewing techniques, resumes, letters of application, references, and employment tests. Each student will develop a portfolio including personal and professional information related to individual career goals. Not for graduate credit. Prerequisite: enrollment in School of Technical Careers baccalaureate program or consent of instructor. Elective Pass/Fail.

Technology (Department)

Two degree programs are available in technology. One program leads to the Bachelor of Science degree with a major in engineering technology (see Engineering Technology) with specialization in one of three areas: civil engineering technology, electrical engineering technology, or mechanical engineering technology. The other program leads to the Bachelor of Science degree with a major in industrial technology (see Industrial Technology) with specialization in one of three areas: industrial technology, industrial technology-occupational, or mining technology.

Engineering technology courses contain topics related to the design and development of products. Industrial technology courses contain topics related to the manufacture and distribution of products.

The present technological society has increased the demand for new types of personnel known as technologists. A technologist utilizes established methods to achieve improvements in existing designs and systems. Technologists should be knowledgeable in the state of the art of a particular technology, capable of utilizing handbooks and other forms of codified information with skill and discrimination, and sufficiently versed in mathematics and science to recognize sound procedures.

The technology programs are flexible enough to provide the means whereby a graduate of a two-year occupational program can obtain a bachelor's degree in a minimum length of time. The industrial technology program provides credit to individuals for related work experience outside the institution.

The programs are designed to provide the necessary training for entry into employment upon the completion of the baccalaureate degree. Opportunities for advanced study are available in business-related fields or in education.

Theater (Department, Major, Courses)

The Department of Theater has as its objective the continuing development of a program blending the academic and practical aspects of the discipline. A broad knowledge of theater is afforded through the theater core curriculum and specific specializations are provided in acting-directing, design-technical and playwriting-dramatic literature. In addition, theater majors may elect to take courses in various other disciplines including music, speech communication, television, cinema, art, and the humanities.

Coordinated with the academic programs is a broad schedule of productions including musical productions, children's theater plays, original works, dramas, and numerous experimental and laboratory works. Direct practical involvement is required of all students and the production schedule is extensive enough to allow students the opportunity to design sets, lights, costumes, and to write, act, and direct for these productions. Students have the additional advantages of work with visiting artists and participation in the Summer Theater program.

Bachelor of Arts Degree, College of Communications and Fine Arts

All theater majors must complete a minimum of 75 hours of courses in addition to the General Studies requirements. Of these hours, 42 constitute a specific specialization and 33 make up the theater core curriculum which is required of all majors. Majors must take a minimum of 12 credit hours in 400-level theater courses beyond the theater core. A letter grade of *C* or better is required of all majors in theater core courses.

General Studies Requirements		45
GSC 365	3	
GSD 153	3	
Requirements for Major in Theater		75
Theater Core Curriculum	33	
Theater 354a, b	6	
Theater 218 a, b, c, 207, 217, 311 a, 402a	20	
Theater 300a, b, 400a, b	4	
English (dramatic literature)	3	
Theater Specialization (Requirements listed below)	42	
Total		120

THEATER MAJOR — ACTING-DIRECTING SPECIALIZATION

Theater 317a, b, 417a	9
Theater 213a, b, 413a	8
Theater 203a, b	6
Theater 402b	3
Speech Pathology and Audiology 200	3
Electives	13
Total	42

Qualified students in the acting-directing specialization may take additional courses of speech studies (Theater 403a, b), stage movement (Theater 413b), and acting (Theater 417b) with consent of instructor. Students interested exclusively in acting may omit 402b from the specialization, using remaining credit hours for electives.

THEATER MAJOR — DESIGN-TECHNICAL SPECIALIZATION

Theater 307, 407, 414a, 418	11
Theater electives	17
Art (by advisement)	6
Electives	8
Total	42

THEATER MAJOR — PLAYWRITING-DRAMATIC LITERATURE SPECIALIZATION

English 460, 462, 464, 465 (select one)	3
Theater 311b, 411a, b, 402b	12
English 468	3
Radio and Television 300M or Cinema and Photography 452	3-4
Theater electives	12-13
Electives	8
Total	42

Minor

Requirements for Minor in Theater	20
Theater 207, 218a, 217, 311a	11
Theater 354a, b	6
Theater electives	3

Courses

203-6 (3, 3) Voice and Diction. **(a)** Voice Production. Basic training in control of breathing, vocal tone, resonance, and vocal power for the beginning actor. **(b)** Diction. Consonant and vowel production; pronunciation for the actor. Prerequisite: 203a.

205-2 Stage Make-Up. Theory and technique of various types of make-ups. Supplies, at least $10.00 per semester.

207-2 Fundamentals of Theatrical Design. Lecture and classroom exercises acquaint students with the problems encountered by the director, scene designer, costumer, and lighting director in providing a suitable environment, by visual means, for the actor. Elective Pass/Fail.

213-6 (3, 3) Stage Movement. Fundamentals of movement for the performer. **(a)** Body awareness/assessment; increasing control and exploring basic elements of movement. **(b)** Applications of basic elements to characterization. Elementary combat techniques and use of props and costume will be introduced. Must be taken in a,b sequence.

217-3 Acting. Preparing the actor's instrument through Stanislavskian technique; concentration/relaxation exercises; improvisations. The course objective is the discovery and

development of the actor's inner resources. Contemporary American plays are studied from the actor's point of view. Readings are selected from the work of Stanislavsky, Boleslavsky, and Michael Chekhov. A final scene is chosen from the genre of American realism. Elective Pass/Fail.

218-9 (3, 3, 3) Stagecraft. **(a)** Fundamentals of scenic construction and stage rigging. Three hours class meeting; six hours practicum. **(b)** Fundamentals of stage lighting including basic tools, equipment, hanging, focusing, and maintenance. Basic color theory and lighting design covered. Three hours class meeting; six hours practicum. **(c)** Basic techniques of constructing and handling stage costume. Three hours class meeting; six hours practicum.

260-1 to 15 Internship. Up to fifteen hours of credit awarded for off-campus internship which is related to the major program but not part of a regular instructional course. Written reports are required of student and supervisor. Prerequisite: theater major only; written proposals must be approved by undergraduate adviser and curriculum committee prior to internship.

300-2 (1, 1) Production. Crew practicum. Crew assignments made by department technical director early each semester. Roles in department productions may fulfill requirement. Must be taken in a,b sequence. Prerequisite: 218a, b, c.

307-2 Drafting for the Theater. Development of the student's skill in scenographic techniques including ground plans, sections, elevations and detail construction drawings. Lecture two hours, laboratory one hour.

311A-3 Play Analysis. An analysis of the structure and content of such dramatic forms as the stage play, film play, television play, etc., as it pertains to the theater practitioner. Conceptual elements are also considered. Students prepare a creative project drawn from one of the following: an original short play scenario, a costume or scene design, a model, a director's promptbook. Prerequisite: GSC 203 or one course in dramatic literature.

311B-3 to 6 Playwriting Workshop for Actors. Practical experience in acting in original plays combined with class discussions and critiques. Actors attend class sessions as well as rehearsals and have their work progressively evaluated. Six credit hours are awarded for the more intensive workshop sessions in the summer while three credits are available during the academic year. Workshop productions are staged in cooperation with 511. Prerequisite: audition; 217 for majors, no prior courses for non-majors. Elective Pass/Fail.

317-6 (3, 3) Intermediate Acting. **(a)** Continuation of the actor's development of inner resources with emphasis on characterization. Mask and body center exercises; characterization through costume, props, music. Discussion of the techniques of outstanding actors. Prerequisite: 217. **(b)** Preliminary scene study. Emphasis on American realism. Extended scenes rehearsed and performed. Written character analyses required. Prerequisite: 317A.

318-3 Advanced Stagecraft. Advanced study of the principles and procedures of scenic construction and stage rigging. Includes fundamentals of scene shop organization, materials, and specialized stage equipment. Three hours lecture and laboratory to be arranged. Prerequisites: 218a, b, and 307.

322-1 to 12 SIU SummerTheater. Practical experience in summer stock play production. A maximum of twelve credit hours may be accumulated for performance or technical work in SIU Summer Theater only. Open to majors or non-majors. Prerequisite: audition or consent of instructor.

323-1 to 6 Practicum for Non-Majors. Practical experience in non-performing production areas for non-majors. Up to six hours may be taken at one time. Prerequisite: consent of instructor.

354-6 (3, 3) History of the Theater. **(a)** Theater history from primitive times through the 17th century. **(b)** Theater history from the 18th century to the present.

390-1 to 6 Independent Study. Independent work on selected problems in academic or blend of academic and creative research. A maximum of three hours may be taken for a single project and a cumulative maximum of six hours may count toward the degree. Prerequisite: majors only; written proposals; consent of undergraduate adviser and instructor.

400-2 (1, 1) Production. Crew practicum for support of major department productions in all areas: costume, makeup, props, set construction, etc. Crew assignments made by department technical director early each semester. Roles in department productions may fulfill requirement. Must be taken a,b sequence. Prerequisite: 300a,b.

402-6 (3, 3) Play Directing. **(a)** Introduction to directing. The history of the director; the evolution of the director into a position of predominance in modern theater hierarchy. The function of the director; an examination of theoretical viewpoint. Textual analysis; establishing the groundwork for the director's approach to production. Prerequisite: junior standing; 207 and 217; or consent of instructor. **(b)** The principles of play direction including play selection, analysis and patterning of auditory and visual elements of production. Extensive scene work in class; direction of a full one-act play by the end of the semester. Prerequisite: 402a or consent of instructor.

403-4 (2, 2) Advanced Theater Speech Studies. **(a)** Standard stage speech. Advanced training in vocal variety and flexibility. Expanded work with phonetics and application to play readings, poetry, etc. Prerequisite: 303b for undergraduates, no prerequisite for Master of Fine Arts acting students. **(b)** Vocal characterization. Applications of standard speech to characterization, verse plays, etc. Includes an approach to common American dialects. Prerequisite: 403a.
404-3 Theater Management. Discussion of legal and financial aspects concerning the professional and community theaters of the United States. Consideration of and practice in managerial activities of an educational theater including administration, purchasing, and accounting practices, direct sales, publicity, promotion, and public relations.
407-3 Stage Design. The design of settings for the stage and other dramatic media. Prerequisite: 207 and 307. Elective Pass/Fail.
410-3 Children's Theater. Study of methods and their practical application of introducing children to theatre and theatrical productions as an art form. Includes the writing of a short play for children. Recommended for majors in education programs.
411A-3 Playwriting — The One-Act Play. Principles of dramatic construction and practice in the writing of two one-act plays. Problems of adaptation are treated. Individual plays have the opportunity to be produced in the theater's Quarter-Night program for new plays. Prerequisite: one course in dramatic literature for non-majors and graduates; 311a for undergraduate theater and speech communication majors; or consent of instructor. Elective Pass/Fail.
411B-3 Playwriting — The Full-Length Play. Principles of dramatic construction and practice in the writing of a full-length play, encompassing such varied types of the children's play, the musical, the outdoor historical drama, etc. In special cases, students may elect to write three short plays. Prerequisite: 411A or consent of instructor for non-majors; 311a for undergraduate theater majors. Elective Pass/Fail.
413-4 (2, 2) Advanced Stage Movement. **(a)** Special movement problems encountered by the actor: falls, combat, mime, working with costumes, props, music. Continued work in characterization and movement skills mastery. Prerequisite: 213a, b for undergraduates; no prerequisite for Master of Fine Arts students. **(b)** Period styles of movement: bows, curtsies, postures, and dances. Research and practical applications. Prerequisite: 413a.
414-6 (3, 3) Costume Design. **(a)** History of western costume from Greek to Renaissance and its adaptation to stage use. Theory and principles of theatrical costuming. Application of principles of design and color. Designs for single scenes. **(b)** History of costume, Renaissance through 19th century. Style, fantasy, and the comic in costume design. Principles of dramatic theory and criticism as applied to costume design. Evaluation of research tools. Methods and procedures in designing costumes for a complete show. Prerequisite: 414a.
417-6 (3, 3) Advanced Acting. **(a)** Advanced scene study. Scenes from the Poetic Realists (Ibsen, Chekhov, Strindberg, etc.) Emphasis is on the ability to build and sustain a character. Audition technique is explored. Prerequisite: 317b. **(b)** Elizabethan style. Scenes and soliloquies from the plays of Shakespeare, Marlowe, Jonson. Fencing and stage combat applied to scene work. Prerequisite: 417a.
418-3 Advanced Stage Lighting. Investigation of stage lighting design, theory, and professional practice. Special attention will be focused on color theory and its application to stage lighting. Three hours lecture and laboratory to be arranged. Prerequisite: 218a, b, c, or consent of instructor.
454-3 American Theater. The development of American theater and its environment from colonial times to the present. Includes a study of the American musical theater from preminstrels through contemporary music-drama.
489-3 to 6 Theater-Television Workshop. Advanced work in the producing, acting, writing of original television drama. Prerequisite: *C* grade in Radio-Television 300M, 300P and consent of instructor for radio-television majors; consent of instructor for theater and other majors.
500-2 Introduction to Research Methods.
501-2 Contemporary Developments.
502-3 Advanced Directing.
503-4 (2, 2) Graduate Theater Speech Studies.
504-3 The Comic Theater.
505-3 The Tragic Theater.
511-3 to 6 Playwriting Workshop.
513-4 (2, 2) Stage Movement for Graduate Actors.
517-6 (3, 3) Graduate Acting Studio.
522-1 to 12 SIU Summer Theater.
526-3 to 12 (3 per topic) Seminar in Theater Arts.
530-1 to 12 Independent Study.
550-2 to 6 (2 per topic) Topical Seminar.
599-1 to 6 Thesis.
600-1 to 36 (1 to 16 per semester) Dissertation.
601-1 to 12 per semester Continuing Research.

Thermal and Environmental Engineering

(Department, Major [Engineering], Courses)

(SEE ENGINEERING)

Tool and Manufacturing Technology (Numerical Control) (Program, Major, Courses)

Graduates of tool and manufacturing technology (numerical control) will have the technical background to assist engineers in research, development, and testing. They will also have skills in metal cutting enabling them to follow through on jobs requiring the abilities of a tool maker.

The tool and manufacturing curriculum is designed to accept students without previous experience in metal cutting. Those students entering with industrial experience, or special courses which were taken during military training, will be given course credit. Transfer students from community colleges will be accepted and given credit for course work where it is applicable.

Upon completion of the tool and manufacturing program, students readily obtain positions in the areas of engineering technicians testing components and materials, pilot model makers, tool and die work, mold making, supervisors of numerical control production lines, programmers, and process planners. With additional on-the-job experience, many graduates of tool and manufacturing technology enter into supervisory positions.

The tool and manufacturing curriculum fits between the areas occupied by the mechanical and manufacturing engineer and the skilled toolmaker. It includes theory, procedures, techniques, and skills from each of these areas and falls approximately halfway between.

Students in this program will have the advantage of courses in data processing that will give them the ability to work with computer-assisted programming for numerical controlled machines.

They will learn to design and test industrial, hydraulic, and pneumatic power circuits; to read blueprints, design basic jigs and fixtures, make shop sketches, and alter existing machines for structural changes; and to build basic progressive dies, draw dies, die casting dies, and plastic injection mold dies.

Graduates will have the technical background to work with engineers in research, development and testing, plus skills in metal cutting that will give them the abilities of a tool maker.

Students in tool and manufacturing technology should expect to spend about $75.00 for instruments, tools, and supplies.

Representatives of industry serve on an advisory committee which helps to keep the program responsive to the needs in the field. Current members are: Paul Andrews, Southern Illinois University at Carbondale, Carbondale; Herb Baum, Nutzel Mach. Co., St. Louis, Mo.; Ed Marshall, General Electric, Carbondale; Charles Stallings, Mt. Vernon High School, Mt. Vernon; R.W. Stelkenrider, Diagraph Bradley Inc., Marion; Roy Volk, Hartwig Inc., St. Louis, Mo.

The associate degree program can be completed in two academic years at Southern Illinois University at Carbondale or in combination with community college or other acceptable extra-institutional educational experience.

Associate in Applied Science Degree, School of Technical Careers

Requirements for Major in Tool and Manufacturing Technology (Numerical Control)

GSD 101	3
GSB 202 or 212	3-4
Electronic Data Processing 208a	4
School of Technical Careers 105a,b, 107a,b, and 102 or 153a	10
Tool and Manufacturing Technology 101, 102, 125, 126, 128, 185, 186, 210, 211, 220, 221, 225, 275, 276	56
Total	76-77

Courses

101-1 to 7 Basic Tool and Manufacturing Laboratory. The student will perform the basic operations covering the drill press, engine lathe, shaper, and basic bench work operations involving layout and hand tools. The operation of the shaper as a unit production machine is covered. Laboratory five to fifteen hours.

102-1 to 7 Milling Machine and Grinding Laboratory. The student will demonstrate ability to set up and operate the various milling machines and grinding machines common to the tool room and manufacturing operations. Laboratory five to fifteen hours. Prerequisite: 101 or consent of instructor.

125-1 to 3 Introduction to Machine Tools. The student will demonstrate knowledge of the basic machine tool operations; also, bench and hand tool techniques. Lecture one to three hours.

126-1 to 3 Machinability of Metals, Milling, and Abrasive Machining. Students will demonstrate ability to selected correct cutting speeds, feeds, and tool geometry for various alloy steels and to understand the relationship of the factors involved. They will be required to understand the various tool room and production milling machine and grinders; their construction, set-up, and operations. Lecture one to three hours. Prerequisite: 125 or consent of instructor.

128-2 Hydraulic and Pneumatic Controls. The student will be required to understand industrial fluid power and its application in industry. The student designs, tests, and implements hydraulic and pneumatic circuits that are applicable to industry. Lecture one hour. Laboratory two hours.

180-3 Welding I. The student will demonstrate ability to apply the basic procedures in oxy-acetylene welding. Lecture one hour. Laboratory four hours.

181-3 Welding II. The student will demonstrate ability to apply basic welding procedures in metallic arc welding. Lecture one hour. Laboratory four hours.

182-3 Welding III. The student will deomonstrate ability to apply basic welding procedures in T.I.G., M.I.G., and special welding and cutting applications. Lecture one hour. Laboratory four hours. Prerequisite: 181 or consent of instructor.

185-4 Technical Drawing I. Upon completion of this course, the student should be able to read and sketch pictorial and multiview drawings which include auxiliary views, sectional views, assemblies, weldments, up-to-date types of precision dimensioning, and many types of fasteners and machine elements. Lecture two hours. Laboratory three hours.

186-4 Technical Drawing II. Upon completion of this course the student should be able to read more complex drawings, use drawing instruments and geometric constructions where accuracy of layout is important, and design and draw simple jigs and fixtures. Lecture two hours. Laboratory three hours. Prerequisite: 185 or consent of instructor.

210-1 to 7 Numerical Control, Electrical Discharge Machining, and Tool and Die. The student will demonstrate ability to set-up and operate the numerically controlled milling machine for production jobs; to set-up and operate the electrical discharge machine on die and mold making applications; and to build progressive compound and forming dies. Laboratory five to fifteen hours. Prerequisite: 102 or consent of instructor.

211-1 to 7 Advanced Numerical Control, Tool and Die, and Production Machining. Students will demonstrate ability to set-up and operate advanced production jobs on the turret lathe, tracer lathe, and numerically controlled milling machines. They will build progressive dies and mold dies. Laboratory five to fifteen hours. Prerequisite: 210 or consent of instructor.

220-1 to 3 Numerical Control, Inspection Practices, and Electrical Discharge. The student will demonstrate ability to program for typical industrial jobs using point to point programming, to understand the E.D.M. process and to select proper machine settings for a given application, and to understand inspection practices and precision measuring procedures. Lecture one to three hours. Prerequisite: 126 or consent of instructor.

221-1 to 3 Tool and Die, Production Machining, and Process Planning. The student will demonstrate ability to process plan and run cost estimates on typical production jobs; to understand basic die design and components in relation to progressive compound and forming dies, and to understand production processes. Lecture one to three hours. Prerequisite: 220 or consent of instructor.

225-2 Manufacturing Processes. A study of the techniques required to coordinate a diverse variety of manufacturing processes into the making of acceptable products.

Special emphasis will be made on the role of the technician in the choice and application of selected processes. Lecture two hours. Prerequisite: 221 or consent of department.
275-2 Ferrous Metallurgy. The student will demonstrate understanding in the theory of alloys, characteristics of metals, simple phase diagrams and basic heat treating practices. Lecture two hours.
276-2 Tool Steel Metallurgy. Students will demonstrate ability to apply heat treating procedures with tool steel common to industrial uses. They must also be able to select the proper steel for the design criteria. Lecture one hour. Laboratory two hours. Prerequisite: 275 or consent of instructor.
310-6 to 24 Certified Welder Training. Students may choose a concentrated area of work such as pipe welding, boilermaking welding, or structural steel welding. Upon completion of this course students will pass the ASME code requirements in the welding area chosen. They may choose any one or all of the following processes; oxyacetylene, metallic arc, tungsten inert gas, metallic inert gas, and cored wire welding. Through individualized instruction students will progress at their own rate and may complete instruction at any time depending upon individual progress. Certified papers will be completed by the School of Technical Careers and will be given to the student or forwarded to an employer. Prerequisite: completion of formal welding program or equivalent work experience.

Uncommon Languages (Minor)

(SEE LINGUISTICS)

University Honors Program (Courses)

111-1 Freshman Honors Colloquium. Open to freshmen. Prerequisite: consent of the dean, General Academic Programs.
201-1 to 9 Honors Seminar. Undergraduate honors seminar. Topics vary and will be announced by the University Honors Program each time the course is offered. Prerequisite: consent of the dean, General Academic Programs.
251a-1 to 8 Honors Seminar in the Sciences. Seminars in the area of the natural sciences intended primarily for freshmen. These seminars may be used to satisfy the requirement for General Studies Area A. Prerequisite: consent of the dean, General Academic Programs.
251b-1 to 8 Honors Seminar in the Social Sciences. Seminars in the area of the social sciences intended primarily for freshmen. These seminars may be used to satisfy the requirement for General Studies Area B. Prerequisite: consent of the dean, General Academic Programs.
251c-1 to 8 Honors Seminar in the Humanities. Seminars in the area of the humanities intended primarily for freshmen. These seminars may be used to satisfy the requirement for General Studies Area C. Prerequisite: consent of the dean, General Academic Programs.
251d-1 to 6 Honors Seminar in Language or Mathematics. Seminars in the area of the organization and communication of ideas, intended primarily for freshman. These seminars may be used to satisfy a part of the requirement for General Studies Area D. Prerequisite: consent of the dean, General Academic Programs.
251e-1 to 4 Honors Seminar in Health and Physical Education. Seminars in the area of health and physical education, intended primarily for freshmen. These seminars may be used to satisfy the requirement for General Studies Area E. Prerequisite: consent of the dean, General Academic Programs.
299-1 to 15 Honors Project. Preparation of honors paper or comparable project under joint supervision of University Honors Program and a faculty member of subject-matter department. Intended primarily for freshmen and sophomores. Prerequisite: consent of the dean, General Academic Programs.
301-1 to 9 Honors Seminar. Undergraduate honors seminar. Topics vary and will be announced by the University Honors Programs each time the course is offered. Prerequisite: consent of the dean, General Academic Programs.
351a-1 to 9 Honors Seminar in the Sciences. Seminars in the area of the natural sciences. These seminars may be used to satisfy the requirement for General Studies Area A. Prerequisite: consent of the dean, General Academic Programs.
351b-1 to 9 Honors Seminar in the Social Sciences. Seminars in the area of social sciences. These seminars may be used to satisfy the requirement for General Studies Area B. Prerequisite: consent on the dean, General Academic Programs.
351c-1 to 9 Honors Seminar in the Humanities. Seminars in the area of the humanities. These seminars may be used to satisfy the requirement for General Studies Area C. Prerequisite: consent of the dean, General Academic Programs.

351d-1 to 6 Honors Seminar in Language or Mathematics. Seminars in the area of the organization and communication of ideas. These seminars may be used to satisfy the requirement for General Studies Area D. Prerequisite: consent of the dean, General Academic Programs.

351e-1 to 4 Honors Seminar in Health and Physical Education. Seminars in the area of health and physical education. These seminars may be used to satisfy the requirement for General Studies Area E. Prerequisite: consent of the dean, General Academic Programs.

399-1 to 15 Honors Project. Preparation of honors paper or comparable project under joint supervision of Univeristy Honors Program and a faculty member of a subject-matter department. Prerequisite: consent of department and the dean, General Academic Programs.

499-3 to 9 Undergraduate Honors Thesis. Preparation of honors thesis under supervision of a committee consisting of one or more faculty members in appropriate disciplines and a representative of the University Honors Program.



University Studies (Program)

The University Studies program allows the eligible student to design a multidisciplinary, interdisciplinary, or general program of study leading to a Bachelor of Science or Bachelor of Arts degree. The Bachelor of Arts degree is granted to the graduate who has completed at least one full year of foreign language on the college level; the Bachelor of Science degree is granted to the graduate who has not completed a year of foreign language.

In order to be formally admitted to work toward a degree in University Studies, the student must meet the following criteria:

1. The student must have no more than 90 semester hours passed.
2. The student must have completed at least one full year of college course work — a minimum of 24 semester hours — with a 2.25 grade point average or higher. (For entering transfer students, the 2.25 must be for all college work previously completed; for continuing Southern Illinois University at Carbondale students, the 2.25 must be for all Southern Illinois University at Carbondale work.)
3. The student must not have exceeded any of the limitations prescribed by the program.
4. The student must have the individual program plan approved by the dean of General Academic Programs or the program representative.

There are few specific requirements for the degree in University Studies other than those requirements which are University-wide baccalaureate requirements. However, there are limitations on the selection of coursework to insure that students pursue a program that matches their abilities, educational goals, and future aspirations.

Bachelor of Arts Degree

General Studies Requirements	45[1]
Requirements for University Studies	75
Foreign language	(4) + 4
300-400 level coursework	40[1]
Electives as approved by the dean of General Academic Programs or a designated representative	31[2]
Total	120

Bachelor of Science Degree

General Studies Requirements	45[1]
Requirements for University Studies	75
300-400 level coursework	40[1]
Electives as approved by the dean of General Academic Programs or a designated representative	35[2]
Total	120

[1]The student must have a minimum grade point average of 2.00 for the 40 semester hours of 300-400 level coursework. General Studies courses at the 300-level count toward both the General Studies requirements and toward the requirement of 40 semester hours at the 300-400 level.

[2]There are two limitations placed on the electives:

a. The student may take no more than 40 semester hours in any academic unit *excluding* the basic 45 semester hours required in General Studies — with the exception of the College of Liberal Arts where no more than 27 semester hours in the Social Sciences (excluding the nine semester hours required in Area B) and no more than 27 semester hours in the Humanities (excluding the nine semester hours required in Area C and excluding English Composition) may be taken.

b. The student may take no more than 20 semester hours in a department (or in a School within a College). General Studies courses are to be included in the total *except* for the basic 45 semester hours required.

In other words, *any* General Studies courses taken in addition to the minimum requirements are counted both toward the academic unit limits allowed and toward the department limits allowed.

University (Courses)

Courses

257-3 to 12 Concurrent Work Experience. For giving elective credit for concurrent work experience by students enrolled in the University Studies degree program. Prerequisite: consent of department.
258-1 to 30 Work Experience. For giving elective credit for previous work experience by students enrolled in the University Studies degree program when credit has been established by departmental evaluation.
259-1 to 60 Occupational Education. A designation for credit granted for past occupational educational experiences related to students' educational objectives. Used only when specific program credit cannot be granted and is usable for elective credit only.
388-1 to 18 (1 to 9 per semester) International Studies. Course work undertaken as part of an approved University residential study program abroad. May be taken for a maximum of nine semester hours per semester and may be repeated for a maximum of 18 semester hours. Prerequisite: major department or program approval.

Vocational Education Studies (Department, Courses)

Programs are designed to prepare persons for teaching, supervisory, and leadership roles in elementary schools, secondary schools, colleges, military and industry in several areas of vocational and pre-vocational educaton. Students are made aware of and become knowledgeable about roles, relationships, and expertise in a variety of occupational subject areas including agriculture, business, career education, health, home economics, industrial arts, public service, and trades and industries. Several majors and specializations are offered. Qualified students may be accepted into the capstone program with majors in agricultural education, business education, home economics education, and occupational education. The capstone program is explained in chapter 3.

AGRICULTURAL EDUCATION (Major)

In this program a student will receive the technical and professional training needed to teach applied biological and agricultural occupations in secondary schools, serve in extension, or be employed in industry. A student majoring in agricultural education may specialize in one of the following areas: agricultural production, agricultural supplies and services, agricultural mechanics, agricultural products, ornamental horticulture, agricultural resources, forestry, and other areas of agriculture in specially design curricula. Students who wish to obtain joint certification in agricultural education and special education must complete that specialization. The Capstone program is available to qualified majors in agricultural education. The Capstone program is explained in chapter 3.

Bachelor of Science Degree, College of Education or School of Agriculture

AGRICULTURAL EDUCATION MAJOR — SECONDARY TEACHING CERTIFICATE

General Studies Requirements	46-47
GSA 106, 115	6
GSB 212 or 300, and 202	6-7
GSD 101, 107, 118, 153	12
GSE 201 and two hours of physical education activity courses	4
Requirements for Major in Agricultural Education	40
Agribusiness Economics	3
Agricultural mechanization courses	4
Agricultural Education and Mechanization 311 and one of the following: 364, 411, 414	7

Animal Industries	3
Plant and Soil Science	3
Specialty in Agriculture and agriculture electives	20
Professional Education Requirements	25
See Teacher Education Program, page 77.	
Electives	8-9
Total	120

Agricultural Education Major — Joint Certification in Agricultural Education and Special Education

A request has been made to the State Board of Education for approval for joint certification in agricultural education and special education. A student may complete an emphasis in special education by completing from six to twelve hours in special education, without satisfying joint certification requirements. Interested students should see an academic advisor.

General Studies Requirements	46-47
GSA 106, 115	6
GSB 212 or 300 and 202	6-7
GSD 101, 107, 118, 153	12
GSE 201 and two hours of physical education activity courses	4
Requirements for Major in Agricultural Education	40
Agribusiness Economics	3
Agricultural mechanization courses	4
Agricultural Education and Mechanization 311 and one of the following: 364, 411, 414	7
Animal Industries	3
Plant and Soil Science	3
Specialty in Agriculture and agriculture electives	20
Requirements in Special Education	21-23
Special Education 400, 401 or 402 or 404, 414, 417 or 418, 419, 430, Psychology 301, Guidance and Educational Psychology 431	
Professional Education Requirements	31
Education 201, 301, 302, 303, 304c, 312-3, 400-8, 401-8	
400 and 401 must include eight hours of student teaching in agricultural education and eight hours in special education.	
See Teacher Education Program, page 77.	
Total	138-141

BUSINESS EDUCATION (Major)

The business education major offers specializations to prepare persons for teaching, supervisory, and leadership roles in secondary schools, private business schools, colleges, and industry in the areas of vocational and pre-vocational business education, and in-service training. Students selecting the secondary certification option may select one of the following teaching areas: office education, accounting, data processing, general business/consumer education, and marketing. Students who wish to obtain joint certification in business education and special education must complete that specialization. Those selecting the non-certification specializations may select from these areas: office, accounting, data processing, marketing, and management. The Capstone program, explained in Chapter 3, is available to qualified majors in business education.

Bachelor of Science Degree, College of Education

BUSINESS EDUCATION MAJOR — SECONDARY TEACHING CERTIFICATE

General Studies Requirements 45
Including GSB 202, 211 or Economics 214, 212 or 300 or 301, 305, GSD 101, 117, 118, or 119, and one additional English course, GSE 201, 2 hours of physical education activity courses

Requirements for Major in Business Education 50
Accounting 110 or 221 3
Administrative Sciences 170 or 304 3
Secretarial and Office Specialties 101a 3
Vocational Education Studies 210, 302, 306, 498b-1 9
Preparation in one of the following business teaching areas:
Accounting
Vocational Education Studies 314
Accounting 222, 321, 322, 341, 365
Electronic Data Processing 217 or Computer Science 212
Plus either two supplemental teaching areas or one supplemental teaching area and completion of vocational program coordination requirements
Data Processing
Vocational Education Studies 412
Electronic Data Processing 102
Two of the following: Electronic Data Processing 201, 204 206, 217 or Computer Science 212
Plus either two supplemental teaching areas or one supplemental teaching area and completion of vocational program coordination requirements
General Business and Consumer Education
Vocational Education Studies 480
Administrative Sciences 350
Marketing 304, 363
Economics 215
Finance 271 or 370
Family Economics and Management 340, 341
Plus either two supplemental teaching areas or one supplemental teaching area and completion of vocational program coordination requirements
Marketing
Vocational Education Studies 415, 418
Marketing 304, 305, 363, 401, 438, 463
Finance 271 or 370
Plus one supplemental teaching area and completion of vocational program coordination requirements
Office
Vocational Education Studies 311, 313, 404
Secretarial and Office Specialties 101d, 106, 107, 109, 233, 230
Plus either three supplemental teaching areas or two supplemental teaching areas and completion of vocational program coordination requirements

Professional Education Requirements 25
See Teacher Education Program, page 77.

Total 120

Supplemental Teaching Areas in Business Education:

1. Accounting and Bookkeeping: Accounting 222 or 120, Vocational Education Studies 314.
2. Data Processing: Vocational Education Studies 412, Electronic Data Processing 102, one of the following: Electronic Data Processing 201, 204, 206, 217 or Computer Science 212.
3. General Business/Consumer Education: Vocational Education Studies 480 and two of the following: Family Economics and Management 340, 341, GSB 346.
4. Business Law: Vocational Education Studies 480, Finance 271, 370.
5. Marketing: Vocational Education Studies 415, 418, Marketing 304, 438.
6. Shorthand and Transcription: Vocational Education Studies 304, 312.
7. Typewriting: Secretarial and Office Specialties 101d, Vocational Education Studies 311.

VOCATIONAL PROGRAM TEACHING REQUIREMENTS

Vocational Education Studies 411, 470, 472, plus the equivalent of one year of work experience from Vocational Education Studies 258 or 395.

Credit from Vocational Education Studies 258 or 259 may be used in lieu of the business education requirements, except Vocational Education Studies 311, 312, 313, 314, 412, 418, and 480.

The city of Chicago has requirements that differ from those presented in this bulletin. Copies of these requirements may be obtained from the business education office, 133 General Classroom Building.

BUSINESS EDUCATION MAJOR — JOINT CERTIFICATION IN BUSINESS EDUCATION AND SPECIAL EDUCATION

A request has been made to the State Board of Education for approval for joint certification in business education and special education. A student may complete an emphasis in special education by completing from six to twelve hours in special education, without satisfying joint certification requirements. Interested students should see an academic adviser.

General Studies Requirements 45
Including GSB 202, 211 or Economics 214, 212 or 300 or 301,305, GSD 101, 117, 118, or 119, and one additional English course, GSE 201, 2 hours of physical education activity courses

Requirements for Major in Business Education 44
Accounting 110 or 221 3
Administrative Sciences 170 or 304 3
Secretarial and Office Specialties 101a 3
Vocational Education Studies 210, 302, 306, 498b 9
Preparation in one of the following business teaching areas:

Accounting
Vocational Education Studies 314
Accounting 222, 321, 322, 341, 365
Electronic Data Processing 217 or Computer Science 212
Plus one supplemental teaching area.

Data Processing
Vocational Education Studies 412
Electronic Data Processing 102
Two of the following: Electronic Data Processing 201, 204, 206, 217 or Computer Science 212
Plus one supplemental teaching area.

General Business and Consumer Education

Vocational Education Studies 480
Administrative Sciences 350
Marketing 304, 363
Economics 215
Finance 271 or 370
Family Economics and Management 340, 341
Plus one supplemental teaching area.

Marketing
Vocational Education Studies 415, 418
Marketing 304, 305, 363, 401, 438, 463
Finance 271 or 370
Plus completion of vocational program coordination requirements.

Office
Vocational Education Studies 311, 313, 404
Secretarial and Office Specialties 101d, 106, 107, 109, 233, 230
Plus two supplemental teaching areas.

Requirements in Special Eduation 21-23
Special Education 400, 401 or 402 or 404, 414, 417 or 418, 419, 430, Psychology 301, Guidance and Educational Psychology 431

Professional Education Requirements 31
Education 201, 301, 302, 303, 304b, 312-3, 400-8, 401-8
400 and 401 must include eight hours of student teaching in business education and eight hours in special education.
See Teaching Education Program, page 77.

Total 141-143

BUSINESS EDUCATION MAJOR — NON-CERTIFICATION BUSINESS OCCUPATIONS TEACHING

General Studies Requirements 45
Including GSB 305, Economics 214 or GSB 211

Requirements for Major in Business Education 75
Accounting 110 and 120 or Accounting 221 and 222 6
Administrative Sciences 304 3
Marketing 304 3
Economics 215 3
Finance 271 3
Secretarial and Office Specialties 101a 3
Vocational Education Studies 210, 302, 306, 495b-3 11
Vocational Education Studies 395, 460, 466, 472, 474, 480, 484 20-28
Plus completion of courses in one of the following areas:

Office
Vocational Education Studies 304, 404, and two of the following: 311, 312, 313
Secretarial and Office Specialties 101d, 102d, 106, 107, 109, 230

Accounting
Accounting 321, 322, 341, 365, 486 or 405
Vocational Education Studies 314
Electronic Data Processing 217 or Computer Science 212

Data Processing
Electronic Data Processing 102, 104, 205, and two of the following: 201, 204, 206, 217 or Computer Science 212
Vocational Education Studies 412

Marketing
- Finance 370
- Marketing 363, 438, 401
- One of the following: Marketing 305, Family Economics and Management 340, GSB 346
- Vocational Education Studies 415 and 418

Management
- Administrative Sciences 341, 350, 385, 431
- Marketing 363, 401
- Vocational Education Studies 480 or 415 and 418

Total 120

Credit from Vocational Education Studies 258 or 259 may be used in lieu of the business education requirements.

Minor

A minor in business education consists of a minimum of 20 hours. Minors are planned for each student individually by the student and the adviser.

HOME ECONOMICS EDUCATION (Major, Courses)

Programs are designed to prepare home economics teachers and home economics extension advisers with various specializations. Both general home economics education and vocational home economics teachers are prepared. Three specializations are offered. Students who wish to obtain joint certification in home economics and special education must complete that specialization. The Capstone program is available to qualified majors in home economics education. The Capstone program is explained in chapter 3.

Bachelor of Science Degree, College of Education

HOME ECONOMICS EDUCATION MAJOR — TEACHING VOCATIONAL HOME ECONOMICS SPECIALIZATION

This program prepares students to teach consumer education, homemaking as an occupation, and occupational home economics in schools operating under the provisions of federal vocational education legislation.

General Studies Requirements 46
Including GSB 202, 203, 212 or 300 or 301; GSC 101; GSD 101, 117 or 118; 153, 107, or 112 and 113; GSE 201; 2 hours of physical education activity courses

Requirements for Major in Home Economics Education 49
- Chemistry 140a ..... (4)
- Child and Family 227, 237, 345, 366, Elective course-3 15
- Clothing and Textiles 127, 304, 314A 9
- Family Economics and Management 320, 330, 340 or GSB 346, 350, 351 13
- Food and Nutrition 100, 156, 335 8
- Interior Design 131 4

Professional Education Requirements 33
- See Teacher Education Program, page 77 25
- Vocational Education Studies 320, 322, 470 8

Total 128

Credit from Vocational Education Studies 258 or 259 may be substituted for six semester hours in each of two areas (Child and Family, Clothing and Textiles, Family Economics and Management, Food and Nutrition) of the home economics

requirements. There is no substitution for Child and Family 227, 237, 366, Family Economics and Management 340, Food and Nutrition 100, or Interior Design 131.

HOME ECONOMICS EDUCATION MAJOR — TEACHING VOCATIONAL HOME ECONOMICS SPECIALIZATION — JOINT CERTIFICATION IN HOME ECONOMICS EDUCATION AND SPECIAL EDUCATION

A request has been made to the State Board of Education for approval for joint certification in home economics education and special education. A student may complete an emphasis in special education by completing from six to twelve hours in special education without satisfying joint certification requirements. Interested students should see an academic adviser.

General Studies Requirements	45
Including GSB 202, 203, 212 or 300 or 301: GSC 101; GSD 101, 117 or 118, 153, 107 or 112 and 113; GSE 201; 2 hours of physical education activity courses	
Requirements for Major in Home Economics Education	35
Chemistry 140a	(4)
Child and Family 227, 237	6
Clothing and Textiles 127, 314a	5
Family Economics and Management 340, 350	6
Food and Nutrition 100, 156, 335	8
Interior Design 131	4
Vocational Education Studies 431, 464	6
Requirements in Special Education	21-23
Special Education 400, 401 or 402 or 404, 414, 417 or 418, 419, 430, Psychology 301, Guidance and Educational Psychology 412 or Psychology 431	
Professional Education Requirements	39
Education 201, 301, 302, 303, 304c, 312-3, 350, 400-8, 401-8	
400 and 401 must include eight hours of student teaching in home economics education and eight hours in special education.	
See Teacher Education Program, page 77.	
Vocational Education Studies 320, 322, 470	8
Total	140-142

HOME ECONOMICS EDUCATION MAJOR — EXTENSION SPECIALIZATION

This program prepares students for positions as home advisers, 4-H advisers, and with further training, extension specialists.

General Studies Requirements	46
Including GSB 202, 203, 212 or 300 or 301; GSC 101; GSD 101, 117 or 118, 153, 107 or 112 and 113; GSE 201; 2 hours of physical education activity courses	
Requirements for Major in Home Economics Education	69
Chemistry 140a,b	(4) + 4
Child and Family 227, 237, 345	9
Clothing and Textiles 127, 150, 304, 314a	11
Family Economics and Management 320, 330, 340, 350, 351	13
Food and Nutrition 100, 156, 256, 335	11
Vocational Education Studies 320, 324, 325, 431	12
Interior Design 131	4
Journalism 340 or substitute	3
Speech Communication 221	3

Electives 4
Total 120

HOME ECONOMICS EDUCATION MAJOR — EDUCATIONAL SERVICES SPECIALIZATION

This program prepares students for positions in agencies and businesses which provide educational services. Such tasks as developing informational materials, working with individual customers or clients, coordinating conferences and demonstrating products might be included in the job description for such positions.

General Studies Requirements 45
Including GSB 202, 203, 211 or 212, GSC 101
Requirements for Major in Home Economics Education 54
Child and Family 227 (or GSB 206), 237 6
Clothing and Textiles 127 or 150, 104 or 304 5
Family Economics and Management 331, 350, 340 or GSB 346 9
Vocational Education Studies 320 or 119, 321, 384, 431, 497c 15
Restricted Electives 19
To be selected from the following:
Child and Family 337, 366
Clothing and Textiles 314a and b, 343, 351, 352
Family Economics and Management 320, 330, 480
Food and Nutrition 156, 256, 335, 356
Interior Design 131
Vocational Education Studies 302, 398c, 433, 464, 474, 490c, 494c
Electives 21
Total 120

OCCUPATIONAL EDUCATION (Major, Courses)

Programs are designed to prepare persons for teaching, supervisory, and leadership roles in schools, colleges, military, and industry. Students are made aware of and become knowledgeable about roles, relationships, and expertise in a variety of educational agencies and occupational subject areas. Five specialization are offered. Students who wish to obtain joint certification in occupational education with specialization in industrial arts or trades and industries and special education must complete that specialization.

Bachelor of Science Degree, College of Education

The Capstone program is available to qualified majors in occupational education. The Capstone program is explained in chapter 3.

OCCUPATIONAL EDUCATION MAJOR — PREOCCUPATIONAL TEACHING SPECIALIZATIONS, INCLUDING INDUSTRIAL ARTS EMPHASIS (SECONDARY TEACHING CERTIFICATE)

Preoccupational teaching encompasses a broad area of study of industry and related areas in elementary and secondary schools. It involves study in a broad area of industrial skills and technology. Students may select a minor area of specialization that will prepare them for teaching orientation and exploration of the world of work through the study of occupational clusters and analyses of occupations; for conducting cooperative education programs; for providing career education; for becoming specialized industrial teachers; for working with specialized populations; and for other specialized programs designed by the student and approved by the academic adviser.

General Studies Requirements 45
Including GSA 101, 106; GSB 202, 212, GSD 101, 117, 153, GSD Mathematics; GSE 201; 2 hours of physical education activity courses

Requirements for Major in Occupational Education 41
Requirement in Laboratory Experiences 24
Vocational Education Studies 366, 370 7
Electives in four industrial arts areas 17
Requirements in Approved Areas of Specialization 17
Vocational Education Studies 362 3
Electives in specialization 14
Professional Education Requirements 34
See Teacher Education Program, page 77 25
Education 304e required.
Vocational Education Studies 462d, 466, 478 9
Total 120

OCCUPATIONAL EDUCATION MAJOR – PREOCCUPATIONAL TEACHING SPECIALIZATIONS, INCLUDING INDUSTRIAL ARTS EMPHASIS – JOINT CERTIFICATION IN OCCUPATIONAL EDUCATION AND SPECIAL EDUCATION.

A request has been made to the State Board of Education for approval for joint certification in occupational education and special education. A student may complete an emphasis in special education by completing from six to twelve hours in special education, without satisfying joint certification requirements. Interested students should see an academic adviser.

General Studies Requirements 46
Including GSA 101, 106; GSB 202, 212; GSD 101, 117, 153, GSD Mathematics; GSE 201; 2 hours of physical education activity
Requirements for Major in Occupational Education 38
Requirements in Laboratory Experiences 24
Vocational Education Studies 366, 370 7
Electives in four industrial arts areas 17
Requirements in Approved Areas of Specialization 14
Vocational Education Studies 362 3
Electives in specialization 11
Requirements in Special Education 21-23
Special Education 400, 401 or 402 or 404, 414, 417 or 418, 419, 430, Psychology 301, Guidance and Educational Psychology 412 or Psychology 431
Professional Education Requirements 37
Education 201, 301, 302, 303, 304b, 312-3, 350, 400-8, 401-8
400 and 401 must include eight hours of student teaching in occupational education and eight hours in special education.
See Teacher Education Program, page 77.
Total 142-144

OCCUPATIONAL EDUCATION MAJOR – TRADES AND INDUSTRIES TEACHING SPECIALIZATION, OCCUPATIONAL EMPHASIS (SECONDARY TEACHING CERTIFICATE)

Trades and industries teaching concerns specialized instruction in a wide variety of vocational-technical occupations including industrial-oriented, and other occupations. In addition to being certificated to teach in secondary high schools or vocational schools, graduates may also teach in industry, private schools and community junior colleges.

General Studies Requirements 45
Including GSA 101, 106; GSB 202, 212; GSD 101, 117, 152, GSD Mathematics; GSE 201; 2 hours of physical education activity courses
Requirements for Major in Occupational Education 41
Vocational Education Studies 395 16
Vocational Education Studies 258 and/or 259 25

Professional Education Requirements 34
See Teacher Education Program, page 77 25
(Must include Education 304b)
Vocational Education Studies 460d, 462d, 466d 9
Total 120

OCCUPATIONAL EDUCATION MAJOR — TRADES AND INDUSTRIES TEACHING SPECIALIZATION, OCCUPATIONAL EMPHASIS — JOINT CERTIFICATION IN OCCUPATIONAL EDUCATION AND SPECIAL EDUCATION

A request has been made to the State Board of Education for approval for joint certification in occupational education and special education. A student may complete an emphasis in special education by completing from six to twelve hours in special education, without satisfying joint certification requirements. Interested students should see an academic adviser.

General Studies Requirements 46
Including GSA 101, 106; GSB 202, 212; GSD 101, 117, 152, GSD Mathematics; GSE 201; 2 hours of physical education activity courses
Requirements for Major in Occupational Education 35
Vocational Education Studies 395d 16
Vocational Education Studies 258 and/or 259 19
Requirements in Special Education 21-23
Special Education 400, 401 or 402 or 404, 414, 417 or 418, 419, 430, Psychology 301, Guidance and Educational Psychology 412 or Psychology 431
Professional Education Requirements 40
Education 201, 301, 302, 303, 304, 312-3, 350, 400-8, 401-8
400 and 401 must include eight hours of student teaching in occupational education and eight hours in special education
See Teaching Education Program, page 77.
Total 142-144

OCCUPATIONAL EDUCATION MAJOR — OCCUPATIONAL TEACHING SPECIALIZATION (POST-SECONDARY TEACHING)

Occupational teaching involves instructing youth and adults in a highly skilled or technical area such as electronics, automotives, aviation, commercial art, cosmetology, or others, which require an advanced knowledge of applications in a defined line of endeavor.

General Studies Requirements 45
Including GSA 101, 106; GSB 202, 212; GSD 101, 117, 152, GSD Mathematics; GSE 201; 2 hours of physical education activity courses
Requirements for Major in Occupational Education 75
Vocational Education Studies 258[1], 259, 395, 460d, 462d, 466d, 472, 495 66
College of Education electives 9
To include 3 semester hours in courses outside the Department of Vocational Education Studies
Total 120

[1]Limit on 258 is 30 semester hours.

OCCUPATIONAL EDUCATION MAJOR — HEALTH OCCUPATIONS TEACHING SPECIALIZATION — SECONDARY TEACHING CERTIFICATE

The health occupations teaching specialization (secondary teaching) prepares persons with allied health and nursing specialty backgrounds for teaching, supervisory, and leadership roles in health occupations education in secondary schools.

In addition to receiving the secondary school certification, persons completing this program are qualified to teach in vocational schools, industry, private schools, and community colleges.

General Studies Requirements 45
Including GSA 101, 106; GSB 202, 212; GSD 101, 117, 152, GSD Mathematics; GSE 201; 2 hours of physical education activities courses
Requirements for Major in Occupational Education 41
Vocational Education Studies 395 16
Vocational Education Studies 258/259 25
Professional Education Requirements 34
Education 304b required.
See Teacher Education Program, page 77. 25
Vocational Education Studies 460e, 462e, 466e 9
Total 120

OCCUPATIONAL EDUCATION MAJOR – HEALTH OCCUPATIONS TEACHING SPECIALIZATION – JOINT CERTIFICATION IN OCCUPATIONAL EDUCATION AND SPECIAL EDUCATION

A request has been made to the State Board of Education for approval for joint certification in occupational education and special education. A student may complete an emphasis in special education by completing from six to twelve hours in special education without satisfying joint certification requirements. Interested students should see an academic adviser.

General Studies Requirements 45
Including GSA 101, 106; GSB 202, 212; GSD 101, 117, 152, GSD Mathematics; GSE 201; 2 hours of physical education activity courses
Requirements for Major in Occupational Education 35
Vocational Education Studies 395e 16
Vocational Education Studies 258/259 19
Requirements in Special Education 21-23
Special Education 400, 401 or 402 or 404, 414, 417 or 418, 419, 430, Psychology 301, Guidance and Educational Psychology 421 or Psychology 431
Professional Education Requirements 40
Education 201, 301, 302, 303, 304b, 312-3, 350, 400-8, 401-8 31
400 and 401 must include eight hours of student teaching in occupational education and eight hours in special education
Vocational Education Studies 460e, 462e, 466e 9
See Teaching Education Program, page 77.
Total 141-143

OCCUPATIONAL EDUCATION MAJOR – HEALTH OCCUPATIONS TEACHING SPECIALIZATION (POST-SECONDARY TEACHING)

The health occupations teaching specialization (post-secondary teaching) prepares persons for instructing in highly skilled and technical health occupations education such as dental hygiene, medical laboratory technology, preprofessional nursing programs, radiological technology, and others which require advanced knowledge or application in a defined health field. Persons completing the post-secondary health occupations teaching specialization are qualified to teach in community colleges, private schools, and industrial settings.

General Studies Requirements 45
Including GSA 101, 106; GSB 202, 212; GSD 101, 117, 152, GSD Mathematics; GSE 201; 2 hours of physical education activity courses

Requirements for Major in Occupational Education	75
Vocational Education Studies 395e, 460e, 466e, 495e	22
Vocational Education Studies 258/259, 492	44
College of Education electives	9
To include three semester hours in courses outside the Department of Vocational Education Studies	
Total	120

Courses

119-1 Home Economics Careers. (Same as Human Resources 111.) An introduction to career opportunities in the broad fields of home economics and related occupations.
210-2 Introduction to Business Education. An introduction to teaching in business education programs in secondary schools, vocational schools, community colleges, and educational programs in businesses. Emphasis is on curriculum structures, philosophical bases, instructional materials and media, student characteristics, employment requirements, and career opportunities.
257-1 to 30 Work Experience. Credit for on-campus work experience through a cooperative program developed between the department and the Office of Student Work and Financial Assistance. Prerequisite: consent of program coordinator. Mandatory Pass/Fail.
258-2 to 30 Occupational Experience. Credit for documented experience in a teachable occupation or family of occupations. Prerequisite: 12 hours of *C* or better at Southern Illinois University.
259-2 to 48 Occupational Subjects. Credit for documented occupational study in accredited and selected other programs. Prerequisite: 12 hours of *C* or better at Southern Illinois University.
302-3 Communications in Business. Principles and practice in written and oral business communications. Included is the development of ability to use words and correct grammatical construction in oral and written business expression; the learning of the principles of planning, organizing, writing, and summarizing effective communications; and the refinement of listening skills.
304-3 Analysis of Alternative Shorthand Systems. Development of high-level dictation and transcription skills and knowledges in one shorthand system; the learning of the theory of one or more additional shorthand systems, either alphabetic or symbolic. Prerequisite: Secretarial and Office Specialties 102D or 103D or equivalent.
306-3 Introduction to Data Processing. Emphasis on operation of keypunch machine, vocabulary development, unit record equipment, concepts of programming, fundamentals of computer mathematics and applications, and flow charting.
311-3 Teaching Typewriting. Review of typewriting technique, skill, and knowledges. Methods of instruction, skill-building principles and techniques, selection and preparation of instructional materials, review of course content, standards of achievement, and evaluation of pupil performance. Prerequisite: Secretarial and Office Specialties 101D or equivalent.
312-2 Teaching Shorthand and Transcription. Methods of instruction, skill-building principles and techniques, selection of preparation of instructional materials, review of course content, standards of achievement, and evaluation of pupil performance. Prerequisite: 304 or equivalent.
313-3 Teaching Office Procedures and Machines. Review of skills and knowledge pertaining to office procedures and machines; instructional methods and materials for and the evaluation of pupil performance in office practice, clerical practice, and office machines. Prerequisite: 404 or equivalent.
314-2 Teaching Bookkeeping and Accounting. Teaching procedures, instructional materials, and evaluation of pupil progress in bookkeeping and accounting; instruction and practice in operations taught in high school and college bookkeeping-accounting classes. Prerequisite: 210 or equivalent.
320-1 Home Economics as a Profession. A social, psychological, and philosophical interpretation of home economics in today's world. Overview of career areas and the practice of the dual role of homemaker-professional worker.
321-2 Methods of Teaching for Non-Teaching Majors. Educational principles for use in situations mostly outside of the formal classroom. Selection and organization of materials. Practice in using a variety of techniques and teaching aids.
322-4 Methods and Curriculum in Home Economics. The total home economics program. Curriculum planning for the course and the unit. Teaching methods especially suitable for home economics classes. Teaching aids and materials. Evaluation of instruction. Managing the business of the department. Possible expense for materials for teaching experiences: $5.00. Prerequisite: Basic professional block in education, eight semester hours.
324-4 History, Development and Principles of Extension Work. The history and philosophy of cooperative extension. Principles and practice of organizing and administering extension work in home economics. Offered alternate years. Transportation expense for field trips: approximately $5.00.

325-4 Field Experience. Six weeks of observing and assisting a county home economics extension adviser. Supervised experiences in various phases of extension work. Student must provide for own living and travel expenses. Prerequisite: 324.
326-2 Practicum-Home and Family Life Education. Provides pre-service home economics teachers and home economics extension advisers experiences in observing and working with families with respect to problems, needs, and values as a basis for more effective teaching.
327-3 Home Economics for Men (and Women). A survey of the areas of home economics; child care and personal, family, and community relations; economics and management of personal and family resources; food, nutrition, clothing selection and buying; financial management, consumer education; and protection. Emphasis on life skills as reflected in needs of students. Field trip and practicum experiences. Cost: two dollars for supplies.
360-15 (3, 3, 3, 3, 3) Vocational, Occupational, and Career Simulation Custers Studies. Vocational, occupational, and careers simulation and gaming activities. Occupational orientation and exploration. Community laboratory films and other methods. Team teaching also used.
362-3 Vocational, Occupational, and Career Orientation and Exploration. Introduction to orientation and exploration activities for vocational, occupational, and career education programs at the junior high and early senior high school levels. Career development processes are examined.
364-3 Leadership of Youth and Peer Groups. (Same as Agricultural Education and Mechanization 364.) Identification and discussion of the role of organizations, both structured and unstructured. Identification and development of qualities of leadership.
366-4 Multi-Activity Laboratory. Participation in designing instructional programs for multiple activity industrial arts laboratory or shops and performing the shop tasks. It includes such methods or approaches as project, exercises, mass production, enterprise, American industries, career orientation, world of construction, and others. Prerequisite: 15 hours shop or laboratory credits.
368-3 Construction Methods for Primary Teachers. Various media such as wood, metal, and paper. Acquainting the primary teacher with the materials, tools, and processes which students at the primary level can manipulate and use in the classroom. Laboratory.
370-3 Diversified Crafts for Teachers and Recreation Leaders. Experience in constructional activities involving the use of wood, metals, leathers, plastics, reed, raffia, clay, and other materials adaptable to the needs and interests of camp counselors and elementary school leaders. Laboratory.
384-3 Adult Education in Vocational, Occupational, and Career Education. Planning and preparing for adult education programs. Includes review of characteristics of clientele, financial support, program development.
395-2 to 24 Occupational Internship. Special educational activities are based upon required occupational skills and knowledges and are related to each student's academic program and career objective. May include independent study. Hours and credit arranged by coordinator. **(a)** Agricultural education. **(b)** Business education. **(c)** Home economics education. **(d)** Industrial education. **(e)** Health occupations education. Prerequisite: consent of coordinator and employment in a University-approved position.
398-1 to 3 Special Problems. Independent study for qualified students. **(a)** Agricultural education. **(b)** Business education. **(c)** Home economics education. **(d)** Industrial education. **(e)** Health occupations education. Prerequisite: consent of instructor.
404-3 Analysis of Office Systems. An investigation of procedures and systems used in various types of offices, including a study of work flow, the processing of words, office personnel and their responsibilities, and the role of office functions in the total business society.
405-3 Office Management. Principles of management applied office problems. Emphasis on the role of the office in business management; office organization; physical facilities and layout of office; office services, procedures, standards, and controls; records management.
407-2 Records Administration. Methods and systems of controlling, storing, retrieving, and disposing of records. Application of principles to such records as medical, legal, educational, industrial, and governmental.
410-2 Principles and Problems of Business Education. A study of the fundamentals of business education; its relation to business, to general education, and to vocational and career education; its history, current status, and trends; special emphasis on objectives and curriculum problems.
411-2 Teaching Classes Related to Experiential Business Education. For those who plan to become teacher-coordinators of vocational cooperative education programs. Emphasis is placed upon the construction and presentation of subject matter and materials used to teach basic marketable skills to secondary and post-secondary students. Prerequisite: 210.
412-2 Teaching Data Processing. Instructional methods and materials for and the evaluation of pupil progress in data processing. Prerequisite: 306 or Electronic Data Processing 101 or equivalent.
415-3 Curriculum and Materials in Marketing Education. A study and application of principles of curriculum development and curriculum materials for high school, adult, and post-secondary programs in marketing and distributive education. Prerequisite: Marketing 304, 363, and 401.

418-3 Teaching Marketing/Distributive Education. For those who plan to become teacher-coordinators of programs in marketing and distributive education. Emphasis is on instructional methods, facilities, student organizations (DECA), operating school stores, and project plans. Prerequisite: 415.

428-3 Home Economics for Elementary Teachers. Identification and development of meaningful home economics related experiences appropriate for various levels of elementary curriculum. Interpretation of current vocational education legislation and trends affecting elementary programs.

430-3 Teaching Concepts and Generalizations in Home Economics. Use of cooperative teacher-pupil planning to develop curriculum based on subject matter concepts and generalizations. Techniques for helping students to take part in planning, implementation of learning experiences, and evaluation. Provides practice in use of group process to plan for sequential learnings. Prerequisite: consent of instructor.

431-3 Demonstration and Laboratory Techniques in Home Economics Education. Practice in planning and carrying out instructional demonstrations in home economics for youth and adults. Use of audiovisual aids and hand-outs. Procedures for laboratory and guided practice to develop psychomotor skills. Attention given to TV presentations. Possible expense for materials to use in classroom demonstrations $5.00 to $8.00.

433-3 Women and the Politics of Education. Ways of organizing to implement legislation for social needs. How to have input into decisions which affect the educational community — reimbursement, grants, funding. The need, impact, and opportunity for careers in public service as these relate to individual, family, and societal needs. Field trips.

460-3 Occupational Analysis and Curriculum Development. The first of a two-course sequence presenting a systems approach to curriculum development and instructional methods utilized in vocational and occupational education. Includes analyzing occupations and jobs, specifying objectives, and developing curriculum. **(b)** Business education. **(d)** Industrial education. **(e)** Health occupations education.

462-3 Teaching Methods and Materials. The second of a two-course sequence presenting a systems approach to curriculum development and instructional methods utilized in vocational and occupational education. Concerned with instructional methods and materials unique to vocational and occupational education. **(d)** Industrial education. **(e)** Health occupations education.

463-3 Assessing Vocational Student Progress. Development and use of evaluation instruments to assess occupational student growth. Use of systems approach to course design, criterion-referenced and norm-referenced objectives, and four taxonomies of educational objectives in development of written tests, laboratory and work station performance tests, and attitude measures. Data are used for evaluation of student progress and program modification. Prerequisite: 460.

464-3 Special Needs Learners in Vocational, Occupational, and Career Education Programs. Theoretical and applied concepts in teaching special needs learners. Affective aspects of learning are emphasized. Curricula and teaching materials are examined and prepared. Field trips.

466-3 Principles and Philosophies of Vocational, Occupational, and Career Education. Nature and purpose of vocational, occupational, and career education, their relationships and differences, and the place of each in preparing for the world of work.

70-3 Introduction to Cooperative Vocational, Occupational, and Career Education. Investigation of competencies required of cooperative education instructors and coordinators.

472-3 Post-Secondary Cooperative Vocational, Occupational, and Career Education. Operational procedures and development of instructional processes for coop programs. Work experience required. Transportation expense for work and field trips.

474-3 Individualized Instruction in Vocational, Occupational, and Career Education. Study of the theory, charcteristics, appropriateness, and evaluation techniques of individualized programs. Will include a review of the current state of individualized instruction in vocational, occupational, and career education.

478-3 Contemporary Principles and Management of IA Programs. Study of contemporary approaches to the teaching of industrial arts including objective philosophies, advantages, and disadvantages; shop or laboratory design and organization; and the management of programs in shops or laboratories. Not for graduate credit. Prerequisite: junior standing.

480-3 Teaching Consumer Education. Principles of teaching consumer education in all settings. Emphasis on meeting state requirements for teachers of consumer education in Illinois. Selection and study of course content; preparation of instructional materials; organization and arrangement of units of study; and planning and evaluation program.

484-3 Adult Vocational and Technical Education. A study of adult vocational and technical education as offered in a variety of educational settings. Major topics include organization, funding, teaching, student characteristics, and evaluation. Prerequisite: consent of adviser.

486-3 Post-Secondary Vocational-Technical Teaching. A study of contemporary approaches to the teaching of vocational education in post-secondary educational institu-

tions. The course includes a review of practices in area vocational centers, vocational-technical institutes, community and junior colleges, colleges and universities.

488-3 Vocational Student Placement and Follow-Up. The organization and operation of comprehensive school-based placement system for secondary and post secondary vocational, technical and adult education student. Utilization of resources with emphasis on planning, implementing, and evaluating the placement effort.

490-1 to 4 Readings. Supervised reading for qualified students. **(a)** Agricultural education. **(b)** Business education. **(c)** Home economics education. **(d)** Industrial education. **(e)** Health occupations education. Prerequisite: consent of instructor and program coordinator.

491-1 to 5 Advanced Occupational Skills. Modern occupational practice in selected fields. For experienced professionals seeking advanced techniques in specialized areas of vocational education. **(a)** Agricultural education **(b)** Business education. **(c)** Home economics education. **(d)** Industrial education. **(e)** Health occupations education. Prerequisite: intermediate level study in the specialty.

494-1 to 4 Workshop. Study of current issues of importance to vocational, occupational, and career education teachers, supervisors, and administrators. Emphasis of each workshop will be identified in each workshop announcement. **(a)** Agricultural education. **(b)** Business education. **(c)** Home economics education. **(d)** Industrial education. **(e)** Health occupations education.

495-2 to 12 Teaching Internship. Internship teaching in vocational programs in approved centers. The intern teacher will follow the program of the supervising teacher in both regular and extra class activities. **(a)** Agricultural education. **(b)** Business education. **(c)** Home economics education. **(d)** Industrial education. **(e)** Health occupations education. Prerequisite: ten hours of 395 and three hours of teaching methods.

497-2 to 6 Practicum. Applications of vocational, occupational, and career education skills and knowledge. Cooperative arrangements with corporations and professional agencies to study under specialists. **(a)** Agricultural education. **(b)** Business education. **(c)** Home economics education. **(d)** Industrial education. **(e)** Health occupations education. Prerequisite: twenty hours in specialty.

498-2 to 5 Special Problems. Assistance and guidance in the investigation and solution of vocational, occupational, or career education problems. **(a)** Agricultural education. **(b)** Business education. **(c)** Home economics education. **(d)** Industrial education. **(e)** Health occupations education. Prerequisite: consent of instructor and program coordinator.

511-2 Improvement of Instruction in Consumer and Basic Business Subjects.

512-2 Improvement of Instruction in Secretarial Subjects.

518-3 Home Economics Programs in the Schools.

520-3 Trends and Issues in Home Economics Education.

521-3 Advanced Methods of Teaching Home Economics.

522-3 Supervision of Home Economics.

561-3 Research in Vocational, Occupational, and Career Education.

562-3 Legislation and Organization in Vocational, Occupational, and Career Education.

564-3 Program Evaluation of Vocational, Occupational, and Career Education Programs.

566-3 Administration and Supervision of Vocational, Occupational, and Career Education Programs.

568-3 Planning Vocational, Occupational, and Career Education Facilities.

570-3 Cooperative Vocational, Occupational, and Career Education Programs.

572-3 Post-Secondary Cooperative Vocational, Occupational, and Career Education Programs.

574-3 Vocational, Occupational, and Career Education Information.

576-6 (3, 3) Policy Implementation and Supervision of Vocational, Occupational, and Career Education Programs.

578-3 Vocational, Occupational, and Career Education in Diverse Settings.

580-3 Characteristics of Vocational, Occupational, and Career Education Clientele.

582-3 Vocational, Occupational, and Career Education Planning and Policy Development.

584-3 Articulated Vocational, Occupational, and Career Education Programs.

586-3 Methods and Materials for Adult Vocational, Occupational, and Career Education Programs.

588-3 Performance-Based Professional Development.

590-1 to 9 (1 to 3 per topic) Readings in Vocational, Occupational, and Career Education.

591-1 to 9 New Developments in Vocational, Occupational, and Career Education Programs.

592-1 to 6 Recent Research in Vocational, Occupational, and Career Education.

593-1 to 4 Individualized Research in Vocational, Occupational, and Career Education.

594-1 to 4 Research Seminar in Vocational, Occupational, and Career Education.

595-1 to 16 Vocational, Occupational, and Career Education Professional Internship.

597-1 to 4 Vocational, Occupational, and Career Education Practicum in Supervision.

598-1 to 6 Special Investigations in Vocational, Occupational, and Career Education.

599-1 to 6 Thesis.

600-1 to 36 Dissertation.

601-1 to 12 per semester Continuing Research.

Women's Studies

A number of departments of the University offer courses dealing with women's studies. While a major or minor program is not offered, the list below provides information about courses for those interested in pursuing studies relating to women.

Women's Studies	Course Title
286	Marriage and Family Living (Also taught as Child and Family 227)
326	Women in the Arts: The Politics of Sex (Also taught as Section B of Communications and Fine Arts 397, Special Interdisciplinary Studies)
341	Psychology of Women (Also taught as Psychology 333)
346	History of the American Family (Also taught as History 369)
347	Women in American History (Also taught as History 368)
351	Women in Literature (Also taught as GSC 351)
352	Images of Women in French Literature (Also taught as French 300)
427	Women in the Visual Arts (Also taught as Art 457)
451	Greek Literature in Translation (Also taught as Classics 405)
456	Philosophical Perspectives on Women (Also taught as Philosophy 446)
487	Human Sexuality (Also taught as Child and Family 410)
488	Women in the Home and Labor Market (Also taught as Family Economics and Management 480)

In addition to the courses offered as Women's Studies, other courses may be taught with specific sections relating to women's studies or may include in the course discussion relating to women. Courses below may be of interest to those pursuing studies relating to women.

General Studies Courses

GSC 231	Greek Civilization
GSC 232	Roman Civilization
GSC 330	Classical Mythology

College of Business and Administration Courses

Administrative Sciences 491	Special Topics in Administration (One topic may be Male/Female Dynamics)

College of Communications and Fine Arts Courses

Cinema and Photography 470	Advanced Topics (One topic may be Women in Film)
Journalism 490	Readings (One topic may be Sex Bias in the Mass Media)
Speech Communication 362	Communication and Social Process

Speech Communication 492	Workshop in Oral Interpretation (One topic may be Women's Movement)

College of Education Courses

Curriculum, Instruction and Media 498	Workshops in Education (One topic may be The Non-Sexist Teacher)
Educational Leadership 515	Current Issues in Educational Administration (One topic may be Women in Educational Administration)
Health Education 405	Sex Education
Higher Education 535	Higher Education Seminar I (One topic may be A Woman's Perspective in Higher Education)
Recreation 385	Readings in Recreation (One topic may be Women in Recreation)
Vocational Education Studies 433	Women and the Politics of Education

College of Human Resources Courses

Administration of Justice 492	Contemporary Issues in the Administration and Justice (One topic may be Female Crime)
Black American Studies 333	The Black Family
Rehabilitation 594	Practicum in Rehabilitation (One topic may be The Women's Center)
Social Welfare 441	Social Work in Selected Agencies (One topic may be The Women's Center)

College of Liberal Arts Courses

Liberal Arts 303	Interdisciplinary Studies (One topic may be Introduction to Women's Studies)
English 493	Special Topics in Literature and Language (One topic may be Four Southern Women Writers)
Linguistics 440	Topics in Linguistics (One topic may be Feminine/Masculine)
Psychology 594e	Practicum in Psychology (One topic may be Feminist Theory)
Sociology 530	Topical Seminar in Sociology (One topic may be Control of Women: Social and Sexual Dimensions)

School of Technical Careers Courses

School of Technical Careers 299	Individual Study (One topic may be Technical Career Options for Women)

Zoology (Department, Major, Courses)

A major in zoology in an appropriate beginning for those planning a career that includes teaching and research in zoology, conservation, fisheries management and wildlife management, environmental monitoring, or the practice of medicine, dentistry, and veterinary science.

Students majoring in zoology are required to develop an individualized curriculum by consulting with the director of undergraduate studies in zoology and an appropriate faculty member of the department. The curriculum must include: a year of chemistry or physics, one course in mathematics beyond the College of

Science requirement or a course in computer science, Biology 305 and 307, Zoology 220a,b, 300 (or equivalent, i.e., Biology 309), Zoology 482, and at least 18 additional semester hours of electives in zoology.

Courses offered in the General Studies program will not be accepted as electives. A minimum of 37 semester hours of biology and zoology must be completed for the major.

Bachelor of Arts or Bachelor of Science Degree, College of Science

General Studies Requirements	45[1]
Supplementary College of Science Requirements	11
Foreign Languages	(4) + 4
Mathematics 110a,b or 111	(4) + 1
Physical Science (Not General Studies)	6[2]
Requirements for Major in Zoology	40-44[3]
Biology 305, 307	6
Zoology 220a,b, 300 (or its equivalent), 482	13
Elective zoology courses	18
Chemistry or Physics (Not General Studies)	(6) + 0-2[4]
A course in Mathematics (beyond Mathematics 110a,b or 111), or in Computer Science	3-5
Electives	20-24
Total	120

[1]The 45 hour requirement may be reduced by taking College of Science or major requirements which are approved substitutes for General Studies courses.
[2]May apply toward General Studies if approved substitutes are taken.
[3]Zoology requirements will satisfy biological science for the College of Science.
[4]Satisfies physical science requirements for the College of Science.

Bachelor of Science Degree, College of Education

Degree taken in the College of Education must satisfy all requirements of that college for the Bachelor of Science degree. The requirements for the major in zoology are the same in both colleges. College of Education professional education and other certification requirements may be found in the section of this catalog titled Curriculum, Instruction, and Media. See Teacher Education Program, page 77.

Minor

A minor in zoology consists of 20 hours, including 220a,b, and 482. Electives from zoology and the following areas may be used to complete the 20-hour minimum requirement: Biology 305, 306, 307, and 309; but no General Studies courses can be included.

Courses

118-4 Introductory Zoology. An introduction to the basic concepts of animal life and its diversity, including the elements of cellular and organismic structure and function, reproduction, development, genetics, evolution, and ecology. Three lectures and one 2-hour laboratory per week. Offered Fall, Spring, and Summer terms. A cost of $5 may be incurred by student.

212-2 Birding. Bird watching for pleasure. Consideration of identification, songs and ecology of birds, information on bird organization, equipment, and techniques. Credit may not be used toward a major in zoology. Two lectures per week. Offered Fall term. Cost of $5 to $10 may be incurred by student.

220-8 (4, 4) Diversity of Animal Life. Diversity and its taxonomic treatment in animals, emphasizing structure, function, life cylces, behavior, and phylogeny. **(a)** Invertebrates, **(b)** Vertebrates. Two lectures and two 2-hour laboratories per week. Need not be taken in a,b sequence. Fall, Spring, Summer. Prerequisite: 118 or strong background in high school biology recommended.

258-2 to 4 Work Experience. Credit for prior experience directly related to a student's specialty in the field of zoology. The student must petition the department and provide

documentation as may be necessary to assess and approve such credit. Available for elective credit only.

300-4 Vertebrate Embryology. Main features of embryonic and fetal development from fish to humans. Two lectures and two 2-hour laboratories per week. Offered Fall and Spring terms. Prerequisite: 220b.

305-2 Genetics Laboratory. Experimental methods in applying basic principles of genetics. Monogenic and digenic inheritance, sex-linkage, gene interaction, linkage and chromosome mapping, mutation, artificial and natural selection, gene frequencies, and genetic drift. Two 2-hour laboratories per week. Cost of $5 may be incurred by student. Offered Spring term. Prerequisite: Biology 305, or concurrent enrollment.

309-3 Elementary Cell Biology. Introduction to structure, function, and natural history of major cell types. Two lectures and one 2-hour laboratory per week. Offered Spring term. Prerequisite: consent of instructor.

314-3 Biology of Human Populations. Examines in detail three aspects of the increasing human population: its biological causes, its effects on the environment, and biological approaches for solving it. Three lectures per week. Offered Fall and Spring terms.

316-3 Insect Pests and Their Control. Classical and economic entomology including morphology, physiology, and taxonomy. Life history, damage, and control of principal injurious insects will be discussed. Two lectures and one 2-hour laboratory per week. Credit may not be used toward a major in zoology. Offered Fall term. Prerequisite: 118 or equivalent.

318-5 Comparative Vertebrate Anatomy. The structure of vertebrate organ systems. Two lectures and three 2-hour laboratories per week. Cost of $5 to $10 may be incurred by student. Offered Fall and Spring term. Prerequisite: 220b.

351-4 Ecological Methods. Basic ecological field techniques for analysis of community structure and functional relationships. Two 4-hour laboratories per week. Cost of field trips may be $5.00 to $25.00 per student. Offered Spring term. Prerequisite: 120a,b or 220a,b and Biology 307.

375-2 Ecology of Surface Mining. Environmental characteristics, techniques of evaluating, plans for utilization and reclamation of surface mined areas. One lecture and one 2-hour laboratory or field trip per week. Credit may not be used toward a major in zoology. Cost of $5 to $10 may be incurred by student. Offered Spring term.

393-1 to 3 Individual Research. Research on zoological problems. Credit may not be used toward a minor in zoology. Some cost may be borne by the student. Offered Fall, Spring, and Summer terms. Prerequisite: minimum of 3.00 GPA (*A* is 4.00), senior standing, and approval by the proposed faculty supervisor.

400-3 Cell Biology of Development. Cellular molecular mechanisms of embryogenesis and differentiation. Examination of the cell as a component of interacting tissues constituting the developing organism. Prerequisite: consent of instructor, 300 or advanced standing in Biology.

402-3 Natural History of Invertebrates. Introduction to ecology, intraspecies communication and interspecies relationships of invertebrate animals. Recommended for teacher preparation programs. Two lectures and one 2-hour laboratory per week. Cost of $10 to $20 may be incurred by student. Offered Fall term. Prerequisite: 220a.

403-3 Natural History of Vertebrates. Life histories, adaptations, and identification of fish, amphibians, reptiles, birds, and mammals, emphasizing local species. Recommended for teacher preparation programs. One lecture and two 2-hour laboratories per week. Offered Spring semester. Prerequisite: 220b or consent of instructor.

405-3 Systematic Zoology. Theory and procedure of classification; population taxonomy; variation and its analysis; rules of zoological nomenclature; taxonomic publication. Three one-hour lecture-discussion meetings per week. Prerequisite: 220a, b and consent of instructor.

406-3 Protozoology. Taxonomy, cytology, reproduction, and physiology of unicellular animals. Laboratory methods for culture and study. One lecture and two 2-hour laboratories per week. Cost of $5.00 may be incurred by student. Offered Fall term. Prerequisite: 120a or 220a.

407-4 Parasitolgy. Principles, collection, identification, morphology, life histories, and control measures. Two lectures and two 2-hour laboratories per week. Cost of $5 may be incurred by student. Offered Spring term. Prerequisite: 220a.

408-3 Herpetology. Taxonomic groups, identification, morphology, and natural history of amphibians and reptiles. One lecture and two 2-hour laboratories per week. Cost of $5.00 may be incurred by student. Offered Fall term. Prerequisite: 220b.

409-4 Vertebrate Histology. Microscopic structure of organs and tissues with emphasis on mammalian material. Two lectures and two 2-hour laboratories per week. Cost of $5.00 may be incurred by student. Offered Spring term. Prerequisite: 10 to 12 semester hours of biological science.

410-6 (3, 3) Vertebrate Paleontology. History of vertebrate animals in terms of their morphological change, geiological succession, and ecological relationships. **(a)** Fossil fishes, amphibians, reptiles and birds. **(b)** Fossil mammals. Two lectures and one 2-hour laboratory

per week. Cost of $5.00 may be incurred by student. Offered (a) Fall; (b) Spring term. Prerequisite: 220b.

413-6 (3, 3) The Invertebrates. (a) Structure, phylogeny, and habitats of the lower invertebrates through lophophorates and deuterostomes except echinoderms. (b) Structure, phylogeny, and habitats of the higher invertebrates including echinoderms, molluscs, annelids, and arthropods. Three 2-hour laboratories per week. Cost of $5 may be incurred by the student. Offered Spring term, (a) in alternate even years; (b) alternate odd years. Cost of $5 may be incurred by student. Prerequisite: 220a.

414-4 Freshwater Invertebrates. Taxonomic groups, identification, distribution, and habitats of the North American freshwater invertebrate fauna. Two lectures, two 2-hour laboratories per week. Offered Fall term. Cost of $15 to $20 may be incurred by student for field trips. Prerequisite: 220a.

415-3 Limnology. Lakes and inland waters; the organisms living in them, and the factors affecting these organisms. Two lectures per week and one 4-hour laboratory alternate weeks. Cost of $15 to $20 may be incurred by student. Offered Fall term. Prerequisite: 220a.

421-4 Histological Techniques. Methods of preparing animal tissue for microscopic study and learn theories of staining and histochemistry. One lecture and two 3-hour laboratories per week. Cost of $15 may be incurred by student. Offered Fall term. Prerequisite: 10 semester hours of biological science.

426-3 Comparative Endocrinology. Comparison of mechanisms influencing hormone release, hormone biosynthesis, and the effects of hormones on target tissues. Includes ablation and histology of glands and chemical and bio-assays with vertebrates and invertebrates. Two lectures and one 2-hour laboratory per week. Cost of $5 to $10 may be incurred by student. Offered Spring term. Prerequisite: consent of instuctor.

460-2 Upland Game Birds. Identification, life history, ecology, and management. One lecture and one 2-hour laboratory per week; there will be three or four Saturday field trips. Cost of field trips up to $25 per student. Prerequisite: 220b or consent of instructor.

461-3 Mammalogy. Taxonomic groups, identification, and natural history of mammals. One hour lecture and two 2-hour laboratories per week. Cost of $10 may be incurred by student. Offered Fall term. Prerequisite: 220b.

462-2 Waterfowl. Identification, life history, ecology, and management. One lecture and one 2-hour laboratory per week; there will be three or four Saturday field trips. Cost of field trips up to $25 per student. Prerequisite: 220b or consent of instructor.

465-3 Icthyology. Taxonomic groups, identification, and natural history of fishes. Two lectures and one 2-hour laboratory per week. Cost of $10 may be incurred by student. Offered Spring term. Prerequisite: 220b.

466-3 Fish Management. Sampling, age and growth, dynamics, habitat improvement, manipulation of fish populations, and management of freshwater and marine fish stock. Two lectures per week and one 4-hour laboratory alternate weeks. Cost of field trips up to $25 per student. Offered Fall term. Prerequisite: 10 hours of biological science.

467-3 Ornithology. Classfication and recognition of birds and the study of their songs, nests, migratory habits, and other behavior. One lecture and one 4-hour laboratory per week. Cost of field trips may be up to $20 per student. Offered Spring term. Prerequisite: 220b.

468-4(2, 2) Wildlife Biology. Basic concepts and techniques employed in managing wildlife population and their associated ecosystems. A basic ecology course is desirable as background for this course. (a) Principles. Two 1-hour lecures per week. (b) Techniques. One 4-hour laboratory session per week, three or four of which will be field trips on Saturdays. Cost of field trips up to $25 per student may be incurred. Offered Fall term. Prerequisite: 10 semester hours of biologcal science; plus for zoology majors, concurrent enrollment in 468b.

471-3 Entomology. Structure, classification, and life histories of insects. One lecture and two 2-hour laboratories per week. Offered Fall term. Cost up to $20 may be incurred by student for field trips. Prerequisite: 220a.

473-3 Aquatic Entomology. Structure, classification, and biology of aquatic insects. One lecture and two 2-hour laboratories per week. Cost up to $20 may be incurred by student. Offered Spring term. Prerequisite: 220a.

478-3 Animal Behavior. Biological basis of the behavior of animals. Two lectures and one 2-hour laboratory per week. Offered Fall semester. Prerequisite: one year of biological science or permission of instructor.

479-2 to 5 Concepts in Animal Behavior. Terms and concepts relevant to the study of animal behavior. Guided self-instructional format, with two 1-hour and one 3-hour period scheduled weekly, primarily as question-answer and evaluation sessions. Offered alternate Spring term (odd years). Prerequisite: one year of biological science or permission of instructor.

480-2 to 5 Research Methods in Animal Behavior. Skills relevant to doing research in animal behavior. Guided self-instructional format, with two 3-hour periods scheduled weekly, primarily as question-answer and evaluation sessions. Cost of up to $25 may be incurred by student. Offered alternate Spring semester (even years). Prerequisite: at least two hours of *B* work in 478 or 479, or permission of instructor.

482-1 Zoology Seminar for Seniors. Classical and contemporary topics in zoology. This requirement will normally be met by participating in the regular meeting of the seminar. In

lieu of seminar attendance and with consent of departmental chairperson, the student may elect to prepare and give an oral presentation at a special seminar on an agreed upon research topic. One meeting per week. Offered Fall, Spring, Summer terms. Not for graduate credit. Prerequisite: senior standing or 24 hours of life sciences completed. Mandatory Pass/Fail.

496-2 to 4 Zoology Field Studies. A trip of four to eight weeks to acquaint students with animals in various environments and with methods of field study, collection, and preservation. Cost of $25 may be incurred by the student. Offered Fall, Spring, Summer terms. Prerequisite: consent of department.

508-2 Helminthology.
512-2 Animal Geography.
514-3 Advanced Entomology.
520-3 Advanced Invertebrates.
521-3 Advanced Limnology.
525-3 Cytology.
530-3 Wildlife Diseases.
540-3 Factors in Animal Reproduction.
542-3 Osteology.
561-3 Game Mammals.
566-3 Fish Culture.
567-1 to 4 Techniques in Fish Culture and Fish Management.
573-3 Physiological Ecology.
577-2 Population Ecology.
578-2 Population Genetics.
580-3 Advanced Taxonomy.
581-2 Zoological Literature.
582-1 to 4 (1, 1, 1, 1) Graduate Zoology Seminars.
583-1 Teaching Zoology in College
585-36 (3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3) Seminar.
593-1 to 8 Individual Research.
599-1 to 8 Research and Thesis.
600-1 to 32 Research and Dissertation.
601-1 to 12 per semester Continuing Research.



5 Faculty

Accountancy (College of Business and Administration)

Anderson, Donald T., Assistant Professor, Ph.D., Texas A & M University, 1980.
Arlinghaus, Barry, Assistant Professor, Ph.D., University of Cincinnati, 1979.
Barron, Mary Noel, Associate Professor, *Emerita,* C.P.A., M.B.A., Indiana University of Michigan, 1946.
Basi, Bartholomew A., Professor and Chairperson, C.P.A., J.D., D.B.A., Indiana University, 1971.
Burger, Clifford R., Professor, C.P.A., M.S., Indiana State University, 1947.
Eriksen, Douglas C., Associate Professor, C.P.A., C.M.A., Ph.D., University of Missouri/Columbia, 1968.
Gallegly, Robert L., Associate Professor, *Emeritus,* A.M. University of Illinois, 1947.
Karvel, George R., Associate Professor, M.S., University of Colorado, 1972.
Masoner, Michael, Assistant Professor, C.P.A., Ph.D., University of Minnesota, 1975.
Miller, James J., Assistant Professor, Ph.D., University of Missouri-Columbia, 1979.
Ogden, Susie, Associate Professor, *Emerita,* A.M., University of Illinois, 1931.
Rivers, Richard A., Assistant Professor, C.P.A., D.B.A., Kent State University, 1976.
Schmidlein, Edward J., Jr., Professor, *Emeritus,* C.P.A., Ph.D., New York University, 1953.
Swick, Ralph D., Professor, *Emeritus,* C.P.A., D.B.A., Indiana University, 1954.
Tucker, Marvin W., Professor, Ph.D., University of Alabama, 1966.
Welker, Robert, Associate Professor, D.B.A., Arizona State University, 1977.
Wright, Roland M., Professor, C.P.A., Ph.D., University of Iowa, 1962.

Administrative Sciences (College of Business and Administration)

Bateman, David N., Associate Professor, Ph.D., Southern Illinois University, 1970.
Bedwell, R. Ralph, Associate Professor, *Emeritus,* Ph.D., Southern Illinois University, 1969.
Bussom, Robert S., Associate Professor, Ph.D., Ohio State University, 1973.
Fohr, John M., Professor, Ed.D., Michigan State University, 1959.
Hunt, James G., Professor, Ph.D., University of Illinois, 1966.
Jauch, Lawrence R., Associate Professor, Ph.D., University of Missouri-Columbia, 1973.
Kuntz, Edwin C., Assistant Professor, D.B.A., Texas Tech University, 1978.
Larson, Lars L., Associate Professor, Ph.D., University of Illinois, 1971.
Martin, Thomas N., Jr., Assistant Professor, Ph.D., University of Iowa, 1977.
Osborn, Richard N., Professor, D.B.A., Kent State University, 1971.
Rehn, Henry J., Professor, *Emeritus,* Ph.D., University of Chicago, 1930.
Schmerhorn, John R., Associate Professor and *Chairperson,* Ph.D., Northwestern University, 1974.
Scott, John W., Professor, *Emeritus,* Ph.D., University of Chicago, 1930.
Sekaran, Uma, Assistant Professor, Ph.D., University of California-Los Angeles, 1977.
Troutt, Marvin, Assistant Professor, Ph.D., University of Illinois at Chicago Circle, 1957.
Vicars, William M., Associate Professor, Ph.D., Southern Illinois University, 1969.
Westberg, William C., Professor, *Emeritus,* Ph.D., Pennsylvania State University, 1948.
White, Gregory P., Assistant Professor, Ph.D., University of Cincinnati, 1976.
Wilson, Harold K., Assistant Professor, D.B.A., University of Colorado, 1972.

Aerospace Studies

Christian, Frank H., Adjunct Professor, M.A. Ed., Chapman College, 1977.
Crow, Samuel A., II, Adjunct Assistant Professor, M.A., Chapman College, 1975.
Hanley, Carl R., Adjunct Instructor.
Hayes, Michael J., Adjunct Instructor.
Johnson, Ralph D., Adjunct Assistant Professor.
Lesser, Stuart J., Adjunct Instructor, A.A., Los Angeles City College, 1976.
McGhee, Robert E., Adjunct Assistant Professor.

Agribusiness Economics (School of Agriculture)

Herr, William McD., Professor Ph.D., Cornell University, 1954.
Keepper, Wendell E., Professor, *Emeritus,* Ph.D., Cornell University, 1938.
Kraft, Steven E., Assistant Professor, Ph.D., Cornell University, 1980.
Persaud, Tillak, Assistant Professor, Ph.D., Oklahoma State University, 1980.
Shumaker, George A., Assistant Professor, Ph.D., University of Georgia, 1977.
Solverson, Lyle, Associate Professor, Ph.D., University of Wisconsin, 1967.
Wills, Walter J., Professor, Ph.D., University of Illinois, 1952.

Agriculture Education and Mechanization (School of Agriculture)

Benton, Ralph A., Professor, *Emeritus,* Ph.D., University of Illinois, 1955.
Doerr, William A., Assistant Professor, Ph.D., Southern Illinois University, 1973.
Legacy, James, Assistant Professor, Ph.D., Cornell University, 1976.
Paterson, John J., Associate Professor, *Emeritus,* M.S., University of Saskatchewan, 1943.
Stitt, Thomas R., Professor, Ph.D., Ohio State University, 1967.
Wolff, Robert L., Associate Professor, Ph.D., Louisiana State University, 1971.
Wood, Eugene S., Professor, *Emeritus,* Ed.D., University of Missouri, 1958.

Allied Health and Public Services (School of Technical Careers)

Branson, Bonnie, Instructor, Dental Hygiene, B.S., University of South Carolina, 1976.
Buckles, James D., Assistant Professor, Correctional Services and Law Enforcement, M.S., Central Missouri State University, 1979.
Bykowski, Peter, Instructor, Dental Laboratory Technology.
Callaghan, Mary C., Associate Professor, Dental Hygiene, M.A. in Ed., University of San Francisco, 1962.
Cittadino, Dominic, Adjunct Assistant Professor, Dental Hygiene, D.D.S., Loyola University, 1974.
Clark, Cynthia, Adjunct Instructor, Nursing, R.N., B.S.N., Biola University, 1972.
Clark, Perry, Adjunct Instructor, Allied Health Careers Specialties, R.T.
Davis, Valda (Sue), Researcher, Allied Health Careers Specialties, B.S., University of Vermont, 1977.
Dugger, Bettie, Adjunct Instructor, Dental Hygiene, A.A., Southern Illinois University, 1974.
Eifert, David C., Researcher, Allied Health Careers Specialties, B.S., Southern Illinois University, 1977.
Elliott, James R., Associate Professor, Dental Hygiene, D.D.S., University of Tennessee, 1953; M.S., Ohio State College of Dentistry, 1962.
Enterman, Cynthia Jo, Instructor, Dental Hygiene, B.S., University of South Dakota, 1976.
Featherston, Gayle, Counselor, Allied Health Careers Specialties, M.S., Southern Illinois University, 1978.
Fitzpatrick, Annette, Project Coordinator, Allied Health Careers Specialties, M.A., Southern Illinois University, 1980.

Gilbert, Jack G., Instructor, Physical Therapist Assistant, M.S., Southern Illinois University, 1979.
Griffith, David, Adjunct Instructor, Allied Health Careers Specialties, R.T.
Havings, Karen, Adjunct Instructor, Allied Health Careers Specialties, R.T.
Hees, Alice Jane, Assistant Professor, Nursing, R.N., M.S., University of Colorado, 1960.
Hendricks, James E., Assistant Professor, Correctional Services and Law Enforcement, Ph.D., Southern Illinois University, 1979.
Hertz, Donald G., Associate Professor, Mortuary Science and Funeral Service, Ed.M., University of Oklahoma, 1953.
Hillebrenner, Lynda, Instructor, Allied Health Careers Specialties, B.A., University of Arizona, 1974.
Hollis, Timothy, Adjunct Instructor, Allied Health Careers Specialties, C.R.T.T., A.S., Triton College, 1974.
Hruza, Edward, Project Coordinator, Allied Health Careers Specialties, Ph.D., Southern Illinois University, 1976.
Hunt, Glen, Adjunct Instructor, Allied Health Careers Specialties, R.T.
Huter, Connie, Adjunct Instructor, Allied Health Careers Specialties, R.T.
Ijams, Kayleonne, Assistant Professor, Dental Laboratory Technology, M.A., Southern Illinois University, 1980.
Jackson, Jolayne, Assistant Professor, Allied Health Careers Specialties, B.A., University of Texas, 1971.
Janczak, David, Adjunct Instructor, Allied Health Careers Specialties, R.T.
Joplin, Jerry, Visiting Assistant Professor, Correctional Services and Law Enforcement, M.S., Southern Illinois University, 1976.
King, Jacquelyn, Adjunct Instructor, Nursing, R.N., M.S.N., Northern Illinois University, 1975.
Kuberski, Roger J., Visiting Instructor, Allied Health Careers Specialties, R.N., C.R.T.T., University of Chicago, 1976.
Kuhl, Mary, Adjunct Instructor, Nursing, R.N., M.S.N., University of Evansville, 1981.
Laake, Dennis J., Assistant Professor, Dental Laboratory Technology, M.S. Ed., Southern Illinois University, 1973.
Landt, John, Adjunct Instructor, Allied Health Careers Specialties, A.R.C.R.T.
LaFevre, Hazel L., Adjunct Instructor, Nursing, R.N., B.S.N., Columbia University, 1953.
Leonard, Josephine, Visiting Instructor, Dental Hygiene, B.S., DeLourdes College, 1976.
Lipe, Saundra K., Adjunct Instructor, Nursing, R.N., M.S.N., University of Evansville, 1981.
Lugenbeel, Archie, Assistant Professor, Allied Health Careers Specialties, M.Ed., University of South Carolina, 1964.
Lyle, Rebecca, Researcher, Allied Health Careers Specialties, M.S., Louisiana State University Medical School, 1977.
Martin, Carol A., Assistant Professor, Correctional Services and Law Enforcement, Ed.D., Andrews University, 1976.
McMurry, William, Visiting Associate Professor, Dental Hygiene, D.D.S., University of Missouri at Kansas City, 1950.
Mickel, Gerald, Instructor, Dental Hygiene, A.S., William Rainey Harper College, 1973.
Morgan, Frederic L., Associate Professor and *Director,* Allied Health and Public Services Division, Ed.D., Ball State University, 1969.
Nicholson, Mary Lou, Adjunct Instructor, Allied Health Careers Specialties, R.T.
Okita, Ted Y., Associate Professor, Physical Therapist Assistant, M.A., Northwestern University, 1964.
Pape, Carolyn D., Instructor, Physical Therapist Assistant, B.S., University of Pennsylvania, 1975.
Patchett, Barbara, Adjunct Instructor, Nursing, R.N., M.S.N., University of Evansville, 1974.
Paul, Robert, Adjunct Instructor, Allied Health Careers Specialties, R.R.T., B.S., Roosevelt University, 1959.
Paulk, Marilyn, Assistant Professor, Dental Hygiene, B.S., Southern Illinois University, 1975.
Poston, George H., Assistant Professor, Mortuary Science and Funeral Service, M.S., Southern Illinois University, 1977.
Rose, Allison, Visiting Instructor, Allied Health Careers Specialties, B.S., Duke University, 1969.
Runions, Charles, Adjunct Instructor, Allied Health Careers Specialties, C.R.T.T.
Ruph, Mary Ann, Adjunct Instructor, Allied Health Careers Specialties, R.T.
Sandy, Phillip, Adjunct Instructor, Allied Health Careers Specialties, R.T.
Schnirring, Richard, Adjunct Instructor, Allied Health Careers Specialties, R.R.T., C.R.T.T., B.A., Sangamon State University, 1980.
Sisko, Noreen, Adjunct Instructor, Nursing, R.N., M.S.N., University of Tennessee, 1978.

Smith, Bill, Adjunct Instructor, Allied Health Careers Specialties, R.T.
Stieren, Patricia, Adjunct Instructor, Nursing, R.N., B.S.N., M.A., Sangamon State University.
Stines, Ginny, Adjunct Instructor, Allied Health Careers Specialties, R.T., A.A., Belleville Area College.
Straley, Kevin J., Instructor, Mortuary Science and Funeral Service, B.S., Southern Illinois University, 1976.
Testo, Ernest J., Adjunct Professor, Dental Hygiene, D.M.D., University of Pittsburg, 1967.
Testory, Renee L., Instructor, Dental Hygiene, B.S., Southern Illinois University, 1975.
Timmel, William, Adjunct Instructor, Allied Health Careers Specialties, G.R.T., B.A., Southern Illinois University, 1977.
Underwood, Linda, Adjunct Instructor, Allied Health Careers Specialties, C.R.T.T.
Waks, Dennis Stanford, Lecturer, Correctional Services and Law Enforcement, L.L.M., University of Missouri at Kansas City, 1975.
Westphal, Dwight, Instructor, Dental Laboratory Technology, B.S., Southern Illinois University, 1977.
Winings, John R., Assistant Professor, Dental Laboratory Technology, M.A., Governors State University, 1972.
Wolaver, Jo Ellen, Instructor, Dental Hygiene, M.S. in Ed., Southern Illinois University, 1975.

Animal Industries (School of Agriculture)

Arthur, Robert, Assistant Professor, Ph.D., University of Missouri, 1970.
Goodman, Bill L., Professor, Ph.D., Ohio State University, 1959.
Harmon, David E., Assistant Professor, Ph.D., University of Georgia, 1978.
Hausler, Carl L., Associate Professor, Ph.D., Purdue University, 1970.
Hinners, Scott W., Professor, *Emeritus,* Ph.D., University of Illinois, 1958.
Kammlade, W.G., Jr., Associate Professor, Ph.D., University of Illinois, 1951.
Kroening, Gilbert H., Professor, Ph.D., Cornell University, 1965.
Lee, D. Dixon, Jr., Associate Professor, Ph.D., North Carolina State University, 1970.
Olson, Howard H., Professor, Ph.D., University of Minnesota, 1952.
Powell, Stephen E., Assistant Professor, Ph.D., Purdue University, 1978.
Reed, Alex, Professor, *Emeritus,* Ph.D., University of Illinois, 1953.
Strack, Louis E., Associate Professor, D.V.M., University of Illinois, 1961.
Woody, H. Dee., Assistant Professor, Ph.D., Michigan State University, 1978.

Anthropology (College of Liberal Arts)

Bender, M. Lionel, Associate Professor, Ph.D., University of Texas at Austin, 1968.
Braun, David P., Assistant Professor, Ph.D., University of Michigan, 1977.
Butler, Brian M., Assistant Professor, Ph.D., Southern Illinois University, 1977.
Corruccini, Robert S., Assistant Professor, Ph.D., University of California at Berkeley, 1975.
Dark, Philip J.C., Professor, *Emeritus,* Ph.D., Yale University, 1954.
Diener, Paul E., Assistant Professor, Ph.D., Stanford University, 1979.
Ford, Susan M., Assistant Professor, Ph.D., University of Pittsburgh, 1980
Gumerman, George J., Professor, Ph.D., University of Arizona, 1969.
Handler, Jerome S., Professor, Ph.D., Brandeis University, 1965.
Kelley, J. Charles, Professor, *Emeritus,* Ph.D., Harvard University, 1948.
MacLachlan, Bruce B., Associate Professor, Ph.D., University of Chicago, 1962.
Maring, Ester G., Assistant Professor, Ph.D., Indiana University, 1969.
Maring, Joel M., Associate Professor, Ph.D., Indiana University, 1967.
Muller, Jon D., Associate Professor, Ph.D., Harvard University, 1967.
Rands, Robert L., Professor, Ph.D., Columbia University, 1952.
Riley, Carroll L., Professor, and *Chairperson,* Ph.D., University of New Mexico, 1952.
Taylor, Walter W., Professor, *Emeritus,* Ph.D., Harvard University, 1943.

Applied Technologies (School of Technical Careers)

Bassett, Franklin A., Assistant Professor, *Emeritus,* Construction Technology, B.S., University of Illinois, 1948.
Beauchamp, Clarence, Assistant Professor, *Emeritus,* M.S., University of Wisconsin, Stout, 1949.

Butts, Thomas, Instructor, Automotive Technology, B.S., Southern Illinois University, 1974.
Cash, Joe R., Assistant Professor, Automotive Technology, M.S.Ed., Southern Illinois University, 1970.
Crenshaw, J. Howard, Instructor, *Emeritus,* Mathematics and Science, M.S., University of Illinois, 1940.
Greer, Jack, Instructor, Automotive Technology, B.S., Southern Illinois University, 1974.
Harbison, James L., Instructor, *Emeritus,* Mathematics and Science, M.S., University of Illinois, 1940.
Hoyle, Orville Glenn, Instructor, *Emeritus,* Tool and Manufacturing Technology, B.Ed., Western Illinois University, 1931.
Jones, Paul, Instructor, *Emeritus,* Automotive Technology.
Kazda, Joseph G., Assistant Professor, Automotive Technology, M.S.Ed., Southern Illinois University, 1965.
Lampman, Duncan, Associate Professor, Tool and Manufacturing Technology and Construction Technology, M.S.Ed., Southern Illinois University, 1956.
McDonald, James H., Instructor, *Emeritus,* Automotive Technology, B.S.Ed., Central Missouri State University, 1948.
Morris, Michael, Instructor, Automotive Technology, A.A.S., Texas State Technical Institute, 1973.
Muhich, Frank W., Associate Professor, *Emeritus,* Tool and Manufacturing Technology, M.S.Ed., Southern Illinois University, 1957.
Naas, James, Assistant Professor, Construction Technology, B.S., Southern Illinois University, 1972.
Osborn, Harold W., Assistant Professor, Construction Technology, M.S.Ed., Southern Illinois University, 1960.
Purdy, Robert, Instructor, Tool and Manufacturing Technology.
Ray, O.B., Instructor, *Emeritus,* Automotive Technology, B.S., Murray State University, 1934.
Romack, Charles, Assistant Professor, Automotive Technology, B.S., Southern Illinois University, 1965.
Runkle, Lewis C., Assistant Professor, *Emeritus,* Automotive Technology, B.S., Southern Illinois University, 1965.
Simon, Ernest J., Professor, *Emeritus,* M.S., University of Illinois, 1936.
Simpson, Jerry, Assistant Professor, Automotive Technology, M.S., Colorado State University, 1966.
Soderstrom, Harry R., Professor, Tool and Manufacturing Technology, M.S., Bradley University, 1952.
Staley, Glenn Lamb, Instructor, Construction Technology, M.S., Southern Illinois University, 1976.
Traylor, George Lelon, Associate Professor, Tool and Manufacturing Technology, M.S.Ed., Southern Illinois University, 1965.
Tregoning, Philip, Assistant Professor, Tool and Manufacturing Technology, M.S.Ed., Southern Illinois University, 1965.
White, James E., Assistant Professor, Automotive Technology, B.S.Ed., Southern Illinois University, 1961.
Willey, Lucian D., Associate Professor, *Emeritus,* Automotive Technology, B.Ed., Western Illinois University, 1936.
Wilson, Thomas, Visiting Instructor, Applied Technology, A.A.S., Southern Illinois University, 1977.

Army Military Science

Webb, Marcia A., Adjunct Assistant Professor and *Chairperson,* M.B.A., Florida Institute of Technology, 1976.
Wooten, James D., Adjunct Instructor.

Art (College of Communications and Fine Arts)

Abrahamson, Roy E., Associate Professor, Ed.D., Columbia University, 1965.
Addington, Aldon M., Assistant Professor, M.F.A., Cranbrook Academy of Art, 1966.
Barone, Violet Trovillion, Assistant Professor, *Emeritus,* M.A., George Peabody College for Teachers, 1955.
Beene, Patricia C., Assistant Professor, Ph.D., Southern Illinois University, 1980.
Bernstein, Lawrence A., Associate Professor, M.F.A., Cranbrook Academy of Art, 1953.
Boysen, Bill H., Associate Professor, M.F.A, University of Wisconsin, 1966.
Deller, Harris, Associate Professor, M.F.A., Cranbrook Academy of Art, 1973.
Fehm, Sherwood A., Associate Professor, Ph.D., Yale University, 1971.

Feldman, Joel B., Assistant Professor, M.F.A., Indiana University, 1967.
Fink, Herbert L., Professor, M.F.A., Yale University, 1958.
Greenfield, Sylvia R., Assistant Professor, M.F.A., University of Colorado, 1967.
Johnson, Evert A., Lecturer, M.A., University of Iowa, 1954.
Kington, L. Brent, Professor, M.F.A., Cranbrook Academy of Art, 1961.
Lawson, Elnora, Instructor, *Emeritus,* B.Ed., Southern Illinois University, 1936.
Lintault, M. Joan, Associate Professor, M.F.A., Southern Illinois University, 1962.
Littlefield, F. Lee, Assistant Professor, M.A., University of New Mexico, 1968.
Mavigliano, George J., Assistant Professor, M.A., Northern Illinois University, 1967.
Mawdsley, Richard, Assistant Professor, M.F.A., University of Kansas, 1969.
Miller, Benjamin T., Professor and *Director,* M.F.A., Carnegie-Mellon University, 1968.
Onken, Michael O., Assistant Professor, M.A., Northern Illinois University, 1966.
Paulson, Robert L., Associate Professor, M.F.A., University of Wisconsin, 1967.
Roach, Lula D., Associate Professor, *Emerita,* M.A., Washington University, 1953.
Shay, Edward Holden, Associate Professor, M.F.A., University of Illinois, 1971.
Sullivan, James E., Associate Professor, M.A., University of California at Los Angeles, 1965.
Sullivan, Milton F., Professor, M.A., Columbia University, 1951.
Walsh, Thomas J., Professor, M.F.A., University of Michigan, 1962.
Wood, Dan D., Associate Professor, M.A., University of Iowa, 1968.
Youngblood, Michael S., Associate Professor, Ph.D., University of Oregon, 1975.

Aviation Technologies (School of Technical Careers)

Bauman, Robert A., Instructor, Avionics Technology.
Birkhead, Larry M., Assistant Professor, Avionics Technology B.A., Southern Illinois University, 1978.
Cannon, Richard H., Assistant Professor, Aviation Technology.
Darosa, Edmund A., Professor, *Emeritus,* Aviation Technology, B.A., College of Saint Joseph, Portugal, 1936.
Eiff, Gary Marvin, Instructor, Aviation Technology, A.A., Wentworth Military Academy, Lexington, Missouri, 1965.
Halverson, Paul David, Instructor, Aviation Technology, M.S., Central Missouri State University, 1978.
Kolkmeyer, Robert O., Assistant Professor, Aviation Technology, M.S.Ed., Southern Illinois University, 1971.
Lyon, William Bruce, Instructor, Aviation Technology, A.A., Southern Illinois University, 1973.
Milton, William Carl, Instructor, Aviation Technology.
Ohman, Lennert R., Assistant Professor, Aviation Technology, B.S., University of Illinois, 1964.
Rich, David L., Assistant Professor, Aviation Technology.
Rodriguez, Charles L., Instructor, Aviation Technology, B.S., Southern Illinois University, 1978.
Schafer, Joseph A., Assistant Professor and *Director,* Aviation Technology, B.S., Lewis College, 1960.
Staples, Laurence C., Assistant Professor, Aviation Technology, B.S., Southern Illinois University, 1975.
Verner, Gerry D., Assistant Professor, Aviation Technology, B.S., Southern Illinois University, 1973.
Weyand, Kenneth B., Instructor, Aviation Technology, M.S., University of Illinois, 1971.

Botany (College of Science)

Ashby, William C., Professor, Ph.D., University of Chicago, 1950.
Bissing, Donald R., Assistant Professor, Ph.D., Claremont Graduate School, 1976.
Marberry, William M., Assistant Professor, *Emeritus,* University of Illinois, 1936.
Matten, Lawrence C., Professor, Ph.D., Cornell University, 1965.
Mohlenbrock, Robert H., Professor, Ph.D., Washington University, 1957.
Olah, Ladislao V., Professor, *Emeritus,* Ph.D., Stephen Tisza University, Hungary, 1934.
Pappelis, Aristotel J., Professor, Ph.D., Iowa State University, 1957.
Robertson, Philip A., Associate Professor, Ph.D., Colorado State University, 1968.
Schmid, Walter E., Professor, Ph.D., University of Wisconsin, 1961.
Stotler, Barbara C., Associate Professor, Ph.D., University of Cincinnati, 1968.
Stotler, Raymond E., Associate Professor, Ph.D., University of Cincinnati, 1968.

Sundberg, Walter J., Associate Professor, Ph.D., University of California, 1971.
Tindall, Donald R., Professor and *Chairperson,* Ph.D., University of Louisville, 1966.
Ugent, Donald, Associate Professor, Ph.D., University of Wisconsin, 1966.
Verduin, Jacob, Professor, Ph.D., Iowa State University, 1947.
Voigt, John W., Professor, Ph.D., University of Nebraska, 1950.
Welch, Walter B., Professor, *Emeritus,* Ph.D., University of Chicago, 1937.
Yopp, John H., Professor, Ph.D., University of Louisville, 1969.

Career Development Center

Andrews, Stanley B., Research Project Specialist, M.S., Southern Illinois University, 1979.
Berry, Gerald L., Assistant Instructor.
Fuggiti, Richard, Instructor.
Goepfert, Robert W., Counselor, A.B., William Jewell College, 1954.
Green, Davis, Assistant Instructor, B.S., Southern Illinois University, 1976.
Hepburn, Larry D., *Project Director,* M.S., Southern Illinois University, 1969.
Hogge, Maureen C., Assistant Instructor.
Jack, Marjorie R., Assistant Instructor, B.S., Southern Illinois University, 1958.
Kuecker, John W., Assistant Instructor, A.S., Southern Illinois University, 1968.
Merritt, E. Hollis, Assistant Dean, Ph.D., Indiana University.
Mifflin, Robert, Assistant Instructor, B.S., Southern Illinois University, 1978.
Motsinger, Linda, Assistant Instructor.
Neely, Betty A., Assistant Instructor, B.S., Southern Illinois University, 1977.
Russell, Lewis, Researcher, M.S.Ed., Southern Illinois University, 1978.
Scott, Donald P., Assistant Instructor.
Smith, Norman D., Assistant Instructor, A.T., Southern Illinois University, 1956.
Stucker, Wanda L., Assistant Instructor, B.S., Southern Illinois University, 1978.
Steinbach, Phillis, Assistant Instructor, M.S., Southern Illinois University, 1973.
Svec, Christine L., Research Project Specialist, M.S., Southern Illinois University, 1975.
Swan, Daniel R., Job Development Specialist, B.S., Morehead State University, 1973.
Vincent, Larry, Job Development Specialist, M.S., Southern Illinois University, 1965.
Waterman, James M., Assistant Instructor, B.S., Southern Illinois University, 1972.

Center for the Study of Crime, Delinquency, and Corrections (College of Human Resources)

Alexander, Myrl E., Professor, *Emeritus,* L.L.D., Manchester College of Indiana, 1956.
Anderson, Dennis, Assistant Professor, Ed.D., University of Nebraska, 1970.
Coughlin, Joseph S., Professor, M.S.W., University of Wisconsin, 1954.
Dreher, Robert H., Associate Professor, J.D., University of Illinois, 1940.
Georges-Abeyie, Daniel E., Associate Professor, Ph.D., Syracuse University, 1974.
Johnson, Elmer H., Professor, Ph.D., University of Wisconsin, 1950.
Matthews, Charles V., Associate Professor, M.S., University of Kansas City, 1951.
Moore, Richard H., Assistant Professor, Ph.D., University of Nebraska at Lincoln, 1972.
Riedel, Marc P., Associate Professor and *Director,* Ph.D., University of Pennsylvania, 1972.
Wilson, Nanci K., Assistant Professor, Ph.D., University of Tennessee, 1972.
Zimmerman, Sherwood E., Assistant Professor, Ph.D., State University of New York at Albany, 1976.

Chemistry and Biochemistry (College of Science)

Arnold, Richard T., Professor, Ph.D., University of Illinois, 1937.
BeMiller, James N., Professor, Ph.D., Purdue University, 1959.
Beyler, Roger E., Professor, Ph.D., University of Illinois, 1949.
Bolen, D. Wayne, Associate Professor, Ph.D., Florida State University, 1969.
Brown, George E., Professor, *Emeritus,* Ph.D., Iowa State University, 1941.
Caskey, Albert L., Associate Professor, Ph.D., Iowa State University, 1961.
Cox, James A., Associate Professor, Ph.D., University of Illinois, 1967.
Emptage, Michael R., Assistant Professor, Ph.D., Harvard University, 1965.
Guyon, John C., Professor, Ph.D., Purdue University, 1961.

Hadler, Herbert I., Professor, Ph.D., University of Wisconsin, 1952.
Hadley, Elbert H., Professor, Ph.D., Duke University, 1940.
Hall, J. Herbert, Professor, Ph.D., University of Michigan, 1959.
Hargrave, Paul A., Associate Professor, Ph.D., University of Minnesota, 1970.
Hinckley, Conrad C., Professor, Ph.D., University of Texas, 1964.
Koster, David F., Associate Professor, Ph.D., Texas A & M University, 1965.
Meyers, Cal Y., Professor, Ph.D., University of Illinois, 1951.
Neckers, J. W., Professor, *Emeritus,* Ph.D., University of Illinois, 1927.
Phillips, John B., Assistant Professor, Ph.D., University of Arizona, 1977.
Scheiner, Steven I., Assistant Professor, Ph.D., Harvard University, 1976.
Schmit, Joseph, Assistant Professor, Ph.D., Purdue University, 1971.
Schmulbach, C. David, Professor and *Chairperson,* Ph.D., University of Illinois, 1958.
Slightom, Jerry L., Assistant Professor, Ph.D., Southern Illinois University.
Slocum, Donald W., Professor, Ph.D., New York University, 1963.
Smith, Gerald V., Professor, Ph.D., University of Arkansas, 1959.
Sung, Michael T., Professor, Ph.D., University of Wisconsin, 1968.
Trimble, Russell F., Professor, Ph.D., Massachusetts Institute of Technology, 1951.
Tyrrell, James, Associate Professor, Ph.D., University of Glasgow, 1963.
Van Lente, Kenneth A., Professor, *Emeritus,* Ph.D., University of Michigan, 1931.
Wotiz, John H., Professor, Ph.D., Ohio State University, 1948.

Cinema and Photography (College of Communications and Fine Arts)

Blumenberg, Richard M., Associate Professor, Ph.D., Ohio University, 1969.
Cocking, Loren D., Assistant Professor, M.A., Ohio State University, 1969.
Covell, Michael D., Assistant Professor, M.F.A., Ohio University, 1975.
Gilmore, David A., Associate Professor, M.F.A., Ohio University, 1969.
Harpole, Charles H., Assistant Professor, Ph.D., New York University, 1976.
Horrell, C. William, Professor, Ed.D., Indiana University, 1955.
Kolb, Gary, Assistant Professor, M.F.A., Ohio University, 1977.
Mercer, John, Professor, Ph.D., University of Nebraska, 1952.
Newberry, James H., Assistant Professor, M.S., Illinois Institute of Technology, 1973.
Paine, Frank, Associate Professor, B.S., Iowa State University, 1950.
Powell, W. Duane, Assistant Professor, M.F.A., University of Illinois, 1977.
Schooley-Robins, Kathryn E., Assistant Professor, M.F.A., Arizona State University, 1973.
Swedlund, Charles A., Professor, M.S., Illinois Institute of Technology, 1961.

Comprehensive Planning and Design (College of Human Resources)

Berry, Thelma Huff, Professor, *Emerita,* Ed.D., Columbia University, 1963.
Busch, W. Larry, Assistant Professor, M.S., Southern Illinois University, 1970.
Davis, Nancy K., Assistant Professor, M.F.A, University of Georgia, 1976.
Ellner, Jack R., Professor, Ph.D., New York University, 1969.
Ferguson, K. James, Adjunct Professor, B.I.D., University of Manitoba, 1950.
Friend, Shirley E., Associate Professor, Ed.D., University of Arkansas, 1969.
Grosowsky, Harold, Lecturer, Certificate, IIT, Institute of Design, Chicago.
Hays, Denny M., Assistant Professor, M. of Arch., University of Utah, Salt Lake City, 1971.
Kula, Elsa, Lecturer, *Emerita,* B.F.A., Pratt Institute, Brooklyn, New York, 1977.
Lougeay, Paul J., Associate Professor, Registered Architect, M.S., Southern Illinois University, 1973.
MacLaughlin, Patricia A., Assistant Professor, M.F.A., University of California, Los Angeles, 1971.
McGinnis, R. Guy, Assistant Professor, B.Arch., B.F.A., Pratt Institute, 1973, 1972.
Padgett, Rose, Professor, *Emerita,* Ph.D., Purdue University, 1955.
Perk, H.F.W., Lecturer, A.B., University of California at Los Angeles, 1951.
Perry, Richard A., Assistant Professor, M.F.A., University of Georgia, 1976.
Pratt, Davis J., Lecturer, Certificate, University of Chicago, IIT, Institute of Design, Chicago.
Pulley, Charles M., Assistant Professor, *Emeritus,* Registered Architect, B.S., University of Illinois, 1939.

Ridley, Samantha Sue, Assistant Professor, M.S., Southern Illinois University, 1959.
Roan, Herbert K., Lecturer, Certificate, Cooper Union, 1938.
Schoen, Alan Hugh, Professor, Ph.D., University of Illinois, 1958.
Stewart, Jo Anne L., Assistant Professor, M.A., University of Connecticut, 1974.
Stewart, Lucy P., Assistant Professor, *Emerita,* M.S., Southern Illinois University, 1964.
St. John, Wayne L., Associate Professor, Ph.D., University of Oregon, 1954.
Whitesel, Ritta, Associate Professor, *Emerita,* M.A., Columbia University, 1941.

Computer Science (College of Liberal Arts)

Bateman, Barry L., Adjunct Professor, Ph.D., Texas A & M University, 1970.
Carmony, Lowell, Assistant Professor, Ph.D., Southern Illinois University, 1976.
Danhof, Kenneth J., Associate Professor and *Chairperson,* Ph.D., Purdue University, 1969.
Guha, Ratan K., Associate Professor, Ph.D., University of Texas at Austin, 1970.
Harris, J. Archer, Assistant Professor, Ph.D., State University of New York at Stony Brook, 1978.
Hazra, Amitava, Assistant Professor, Ph.D., Illinois Institute of Technology, 1980.
Mark, Abraham M., Professor, Ph.D., Cornell University, 1947.
McGlinn, Robert, Visiting Assistant Professor, Ph.D., Southern Illinois University, 1976.
Pagan, Frank, Associate Professor, Ph.D., University of Toronto, 1972.
Varol, Yaakov, Associate Professor, Ph.D., University of Wyoming, 1971.
Wright, William E., Assistant Professor, D.Sc., Washington University, 1972.

Curriculum, Instruction, and Media (College of Education)

Aikman, Arthur L., Professor, Ph.D., Southern Illinois University, 1965.
Alston, Melvin O., Professor, *Emeritus,* Ed.D., Columbia University, 1945.
Anderson, Kaye, Instructor, M.S. in Ed., Southern Illinois University, 1970.
Barrette, Pierre, Assistant Professor, Ed.D., University of Massachusetts, 1971.
Bauner, Ruth E., Associate Professor, Ph.D., Southern Illinois University, 1978.
Bedient, Douglas, Assistant Professor, Ph.D., Southern Illinois University, 1971.
Bencini, E. L., Assistant Professor, *Emeritus,* M.Ed., University of Missouri, 1942.
Boykin, Arsene O., Associate Professor, Ed.D., University of Illinois, 1964.
Bradfield, Joyce M., Instructor, M.A., George Peabody College for Teachers, 1946.
Bradfield, Luther E., Professor, *Emeritus,* Ed.D., Indiana University, 1953.
Brod, Ernest E., Professor, *Emeritus,* Ed.D., University of Northern Colorado, 1953.
Brown, Bill, Instructor, *Emeritus,* M.Ed., University of Missouri, 1946.
Buser, Margaret, Instructor, M.S. Ed., Indiana University, 1966.
Butts, Gordon K., Professor, Ed.D., Indiana University, 1956.
Byrd, David M., Assistant Professor, Ph.D., Syracuse University, 1980.
Carter, Cleo D., Associate Profesor, *Emerita,* Ed.D., Indiana University, 1958.
Casey, John P., Professor, Ed.D., Indiana University, 1963.
Cherry, Aveniel, Lecturer, M.S. in Ed., Southern Illinois University, 1962.
Copenhaver, Ron W., Assistant Professor, Ed.D., Indiana University, 1978.
Cox, Dorothy, Assistant Professor, Ph.D., Southern Illinois University, 1976.
Dale, Doris C., Professor, D.L.S., Columbia University, 1968.
DeFord, Diane, Assistant Professor, Ed.D., Indiana University, 1978.
DeWeese, Jewel V., Instructor, *Emerita,* M.S. Ed., Southern Illinois University, 1971.
Dixon, Billy G., Associate Professor and *Chairperson,* Ph.D., Southern Illinois University, 1967.
Eddins, John M., Assistant Professor, Ph.D., Florida State University, 1966.
Edwards, Troy W., Professor, *Emeritus,* Ed.D., Indiana University, 1954.
Fletcher, Kathleen G., Associate Professor, *Emerita,* M.S., University of Illinois, 1947.
Fligor, Ross J., Professor, *Emeritus,* Ph.D., Michigan State University, 1953.
Giles, M. Frances, Coordinator, Teacher Education Services, M.A., Southern Illinois University, 1969.
Grant, Francis, Assistant Professor, Ph.D., Michigan State University, 1972.
Hill, Margaret K., Professor, Ed.D., Boston University, 1948.
Hungerford, Harold R., Professor, Ph.D., Southern Illinois University, 1970.
Jacko, Carol, Associate Professor, Ph.D., University of Pittsburgh, 1974.
Jackson, James, Assistant Professor, Ph.D., University of Wisconsin, 1976.
Jackson, Michael, Associate Professor, Ed.D., University of Florida, 1971.
Jenkins, Jeannette, Lecturer, M.Ed., Pennsylvania State University, 1948.
Jones, Dan R., Assistant Professor, Ed.D., Indiana University, 1978.

Karmos, Ann, Associate Professor, Ph.D., Southern Illinois University, 1975.
Klasek, Charles B., Associate Professor, Ph.D., University of Nebraska, 1971.
Lamb, Morris L., Associate Professor, Ed.D., University of Oklahoma, 1970.
Lee, J. Murray, Professor, *Emeritus,* Ph.D., Columbia University, 1934.
Leming, James, Assistant Professor, Ph.D., University of Wisconsin, 1973.
Lindberg, Dormalee H., Associate Professor, Ed.D., University of Missouri, Columbia, 1969.
Lipsey, William, Lecturer, *Emeritus,* Ed.D., Northwestern University, 1952.
Long, Ruth A., Adjunct Professor, Ed.D., Indiana University, 1972.
Malone, Willis E., Professor, *Emeritus,* Ph.D., Ohio State University, 1950.
Matthias, Margaret, Assistant Professor, Ph.D., Southern Illinois University, 1972.
McIntyre, John, Assistant Professor, Ed.D., Syracuse University, 1977.
Meehan, Elizabeth C., Assistant Professor, *Emerita,* A.M., University of Illinois, 1940.
Meyer, Edra T., Instructor, *Emerita,* M.S., Southern Illinois University, 1956.
Moore, Eryn E., Assistant Professor, Ph.D., Southern Illinois University, 1976.
Mueller, Ruth E., Academic Adviser, B.S., Milwaukee State Teachers College, 1944.
Norris, William, Assistant Professor, Ed.D., Indiana University, 1973.
O'Bryan, Sharon, Assistant Professor, Ed.D., Indiana University, 1978.
Paige, Donald D., Professor, Ed.D., Indiana University, 1966.
Pope, Cedric A., Assistant Professor, Ed.D., University of Northern Colorado, 1959.
Quisenberry, James D., Assistant Professor, Ph.D., Indiana University, 1972.
Quisenberry, Nancy L., Associate Professor, Ed.D., Indiana University, 1971.
Randolph, Victor, Professor, *Emeritus,* Ph.D., George Peabody College for Teachers, 1942.
Rigg, Pat, Associate Professor, Ph.D., Wayne State University, 1974.
Rose, Jess C., Assistant Professor, Ed.D., University of Northern Colorado, 1977.
Rosenberg, Marc, Assistant Professor, Ph.D., Kent State University, 1977.
Roy, Thomas, Lecturer, M.S.Ed., Southern Illinois University, 1975.
Rubba, Peter A., Assistant Professor, Ed.D., Indiana University, 1977.
Samford, Clarence, Professor, *Emeritus,* Ph.D., New York University, 1940.
Scheer, Janet K., Assistant Professor, Ph.D., Arizona State University, 1977.
Seiferth, Berniece B., Professor, Ed.D., University of Missouri, 1955.
Shelton, Vivian H., Instructor, M.S. Ed., Southern Illinois University, 1965.
Shepherd, Terry R., Associate Professor, Ph.D., University of Illinois, 1971.
Sloan, Fred A., Professor, Ed.D., George Peabody College for Teachers, 1959.
Solliday, Michael, Assistant Professor, Ph.D., Southern Illinois University, 1975.
Spigle, Irving S., Associate Professor, *Emeritus,* Ed.D., Indiana University, 1955.
Stephens, Clarence, Professor, *Emeritus,* Ed.D., Indiana University, 1955.
Sutter, Daniel, Assistant Professor, Ed.D., Indiana University, 1972.
Tomera, Audrey, Associate Professor, Ph.D., Southern Illinois University, 1973.
Treece, Madelyn, Assistant Professor, *Emerita,* A.M., University of Chicago, 1936.
Turner, Doris S., Lecturer, M.S. in Ed., Southern Illinois University, 1949.
Wendt, Paul R., Professor, *Emeritus,* Ph.D., University of Minnesota, 1948.
Winsor, Donald, Associate Professor, Ed.D., University of Florida, 1961.
Wood, Ruth B., Instructor, *Emerita,* M.S., University of Illinois, 1948.

Economics (College of Liberal Arts)

Adams, Donald R., Jr., Professor, Ph.D., University of Pennsylvania, 1967.
Bhandari, Jagdeep, Assistant Professor, Ph.D., Southern Methodist University, 1980.
Edelman, Milton T., Professor, *Emeritus,* Ph.D., University of Illinois, 1951.
Ellis, Robert J., Jr., Associate Professor, Ph.D., University of Virginia, 1966.
Fare, Rolf, Associate Professor, Docent., University of Lund, 1976.
Foran, Terry G., Associate Professor and *Chairperson,* Ph.D., Pennsylvania State University, 1971.
Fryman, Richard F., Associate Professor, Ph.D., University of Illinois, 1967.
Gellerson, Mark, Assistant Professor, Ph.D., Syracuse University, 1978.
Grabowski, Richard, Assistant Professor, Ph.D., University of Utah, 1977.
Grosskopf, Shawna, Assistant Professor, Ph.D., Syracuse University, 1977.
Hand, George H., Professor, *Emeritus,* Ph.D., Princeton University, 1939.
Hickman, C. Addison, Professor, Vandeveer Chair of Economics, Ph.D., University of Iowa, 1942.
Layer, Robert G., Professor, Ph.D., Harvard University, 1952.
Lyon, Vern, Assistant Professor, Ph.D., University of Kansas, 1975.
Morrison, Vernon G., Professor, *Emeritus,* Ph.D., University of Nebraska, 1961.
Myers, John G., Associate Professor, Ph.D., Columbia University, 1961.
Primont, Daniel A., Associate Professor, Ph.D., University of California at Santa Barbara, 1970.

Shields, Michael P., Assistant Professor, Ph.D., University of Utah, 1975.
Tracy, Ronald L., Assistant Professor, Ph.D., Michigan State University, 1975.
Trescott, Paul B., Professor, Ph.D., Princeton University, 1954.
Vogel, Robert C., Associate Professor, Ph.D., Stanford University, 1967.
Wiegand, G. C., Professor, *Emeritus,* Ph.D., Northwestern University, 1950.
Yoon, Bong J., Assistant Professor, Ph.D., University of Illinois, 1978.

Educational Leadership (College of Education)

Armistead, Fred J., Professor, *Emeritus,* Ph.D., University of California, 1960.
Bach, Jacob O., Professor, Ph.D., University of Wisconsin, 1951.
Bracewell, George, Professor, *Emeritus,* Ed.D., Washington University, 1952.
Brammell, Paris R., Professor, *Emeritus,* Ph.D., University of Washington, 1930.
Bryant, Roye R., Professor, *Emeritus,* D.Ed., Washington University, 1952.
Buser, Robert L., Professor, Ed.D., Indiana University, 1966.
Childs, John L., Professor, *Emeritus,* Ph.D., Teachers College, Columbia University, 1931.
Clark, Elmer J., Professor, Ph.D., University of Michigan, 1949.
Dennis, Lawrence J., Professor, Ph.D., Southern Illinois University, 1968.
Duff, Grace H., Assistant Professor, *Emerita,* Ph.D., Southern Illinois University, 1970.
Eaton, William E., Associate Professor, Ph.D., Washington University, 1971.
Ewing, Parmer L., Professor, *Emeritus,* Ed.D., New York University, 1950.
Fishback, Woodson W., Associate Professor, *Emeritus,* Ph.D., University of Chicago, 1947.
Greer, Charles E., Visiting Assistant Professor, Ph.D., Southern Illinois University, 1977.
Hall, James H., Associate Professor, *Emeritus,* Ed.D., George Washington University, 1950.
Jacobs, Robert, Professor, *Emeritus,* Ed.D., Wayne State University, 1949.
Kaiser, Dale E., Professor, Ph.D., University of Illinois, 1963.
Lawler, Eugene S., Professor, *Emeritus,* Ph.D., Columbia University, 1932.
Lean, Arthur E., Professor, *Emeritus,* Ph.D., University of Michigan, 1948.
Matthias, William, Associate Professor, Ed.D., University of Illinois, 1964.
McKenzie, William R., Professor, Ed.D., University of Denver, 1953.
Merwin, Bruce W., Professor, *Emeritus,* Ph.D., University of Kansas, 1929.
Miller, Harry G., Professor and *Chairperson,* Ed.D., University of Nebraska, 1970.
Moore, Malvin E., Professor, Ed.D., George Peabody College for Teachers, 1959.
Neal, Charles D., Professor, *Emeritus,* Ed.D., Indiana University, 1948.
Parker, James C., Associate Professor, Ed.D., University of Tennessee, 1971.
Sasse, Edward B., Professor, Ph.D., University of Wisconsin, 1966.
Shelton, William E., Associate Professor, Ph.D., University of Chicago, 1950.
Stuck, Dean, Professor, Ph.D., Iowa State University, 1968.
Verduin, John R., Jr., Professor, Ph.D., Michigan State University, 1962.
Warren, F. G., Professor, *Emeritus,* A.M., University of Chicago, 1928.
Wohlwend, Herbert W., Associate Professor, Ph.D., Southern Illinois University, 1964.

Electrical Sciences and Systems Engineering (College of Engineering and Technology)

Begley, David L., Assistant Professor, Ph.D., University of Missouri at Rolla, 1978.
Dodd, Curtis W., Associate Professor, Ph.D., Arizona State University, 1967.
Dunning, E. Leon, Professor, Ph.D., University of Houston, 1967.
Fieste, Vernold K., Associate Professor, Ph.D., University of Missouri at Columbia, 1966.
Goben, Charles A., Professor and *Chairperson,* Iowa State University, 1965
Lit, Alfred, Professor, Ph.D., Columbia University, 1948.
McCalla, Thomas, Jr., Associate Profeesor, Ph.D., Case Western Reserve University, 1969.
Rawlings, Charles A., Associate Professor, Ph.D., Southern Illinois University, 1974.
Smith, James G., Professor, Ph.D., University of Missouri at Rolla, 1967.

Engineering Mechanics and Materials (College of Engineering and Technology)

Brower, William E., Jr., Associate Professor, Ph.D., Massachusetts Institute of Technology, 1969.
Craddock, James N., Assistant Professor, Ph.D., University of Illinois, 1979.

Davis, Philip, Professor and *Chairperson,* Ph.D., University of Michigan, 1963.
Eddingfield, David, Assistant Professor, Ph.D., University of New Mexico, 1975.
Evers, James, Associate Professor, Ph.D., University of Alabama, 1969.
Hall, Monte R., Assistant Professor, Ph.D., Virginia Polytechnic Institute and State University, 1974.
Kassimali, Aslam, Assistant Professor, Ph.D., University of Missouri, 1976.
Nowacki, C. Raymond, Associate Professor, Ph.D., University of Illinois, 1965.
Orthwein, William, Professor, Ph.D., University of Michigan, 1959.
Rubayi, Najim, Professor, Ph.D., University of Wisconsin, 1966.
Sami, Sedat, Professor, Ph.D., University of Iowa, 1966.

English (College of Liberal Arts)

Appleby, Bruce C., Associate Professor, Ph.D., University of Iowa, 1967.
Barber, Julia Minette, Assistant Professor, *Emeritus,* A.M., University of Illinois, 1915.
Benziger, James G., Professor, Ph.D., Princeton University, 1941.
Black, Rose, Instructor, *Emerita,* M.A., Ohio State University, 1926.
Boyle, Ted Eugene, Professor, Ph.D., University of Nebraska, 1962.
Brown, William J., Associate Professor, Ph.D., Duke University, 1966.
Burns, Winifred, Assistant Professor, *Emerita,* M.A., University of Illinois, 1933.
Camp, George, Assistant Professor, *Emeritus,* Ph.D., University of Illinois, 1951.
Cassidy, Thomas E., Associate Professor, *Emeritus,* A.M., University of Notre Dame, 1938.
Clark, Martha, Instructor, *Emerita,* A.M., Southern Illinois University, 1953.
Cohn, Alan Martin, Professor, M.S., University of Illinois, 1955.
Coleman, E. C., Professor, *Emeritus,* Ph.D., University of Illinois, 1936.
Collins, K., Assistant Professor, Ph.D., Vanderbilt University, 1977.
Dodd, Diana L., Assistant Professor, *Emerita,* M.A., Southern Illinois University, 1954.
Donow, Herbert, Associate Professor, Ph.D., University of Iowa, 1966.
Friend, Jewell, Associate Professor, Ph.D., Southern Illinois University, 1970.
Goodin, George, Associate Professor, Ph.D., University of Illinois, 1962.
Griffin, Robert P., Associate Professor, Ph.D., University of Connecticut, 1965.
Hatton, Thomas J., Associate Professor, Ph.D., University of Nebraska, 1966.
Hillegas, Mark, Professor, Ph.D., Columbia University, 1957.
Hilliard, Lewis J., Instructor, M.S. in Ed., Southern Illinois University, 1952.
Howell, John M., Associate Professor, Ph.D., Tulane University, 1963.
Hurley, Paul, Professor, Ph.D., Duke University, 1962.
Krappe, Edith, Associate Professor, *Emerita,* Ph.D., University of Pennsylvania, 1953.
Kvernes, David M., Assistant Professor, Ph.D., University of Minnesota, 1967.
Lamb, Mary, Assistant Professor, Ph.D., Columbia University, 1976.
Lawson, Richard A., Associate Professor, Ph.D., Tulane University, 1966.
Lingle, Fred, Assistant Professor, *Emeritus,* A.M., University of Illinois, 1935.
Little, Judy Ruth, Associate Professor, Ph.D., University of Nebraska, 1969.
Martin, Joan Foley, Assistant Professor, M.A., Southern Illinois University, 1959.
McNichols, Edward L., Instructor, M.A., University of Detroit, 1958.
Mitchell, Betty Lou, Assistant Professor M.A., Southern Illinois University, 1951.
Moore, Harry T., Professor and Research Professor, *Emeritus,* Ph.D., Boston University, 1951.
Moss, Sidney P., Professor, Ph.D., University of Illinois, 1954.
Partlow, Robert B., Jr., Professor, *Emeritus,* Ph.D., Harvard University 1955.
Paul, James, Assistant Professor, Ph.D., University of Michigan, 1977.
Peterson, Richard F., Associate Professor, Ph.D., Kent State University, 1969.
Piper, Henry Dan, Professor, Ph.D., University of Pennsylvania, 1950.
Rainbow, Raymond, Associate Professor, Ph.D., University of Chicago, 1950.
Raizis, M. Byron, Professor, Ph.D., New York University, 1966.
Richman, Lois Anne, Assistant Professor, A.M., University of Illinois, 1962.
Rinderer, Regina, Assistant Professor, Ph.D., Ohio State University.
Rudnick, Hans, Associate Professor, Ph.D., University of Freiburg, Germany, 1966.
Schonhorn, Manuel, Professor, Ph.D., University of Pennsylvania, 1963.
Simeone, William E., Professor and *Chairperson,* Ph.D., University of Pennsylvania, 1950.
Simon, Mary C., Instructor, *Emerita,* A.M., University of Illinois, 1940.
Stibitz, E. Earle, Professor, *Emeritus,* Ph.D., University of Michigan, 1951.
Taylor, Larry E., Associate Professor, Ph.D., University of Oklahoma, 1969.
Tenney, Charles D., University Professor, *Emeritus,* Ph.D., University of Oregon, 1931.
Travis, Edna, Instructor, *Emerita,* M.S. in Ed., Southern Illinois University, 1948.
Vieth, David Muench, Professor, Ph.D., Yale University, 1953.
Webb, Howard W., Jr., Professor, Ph.D., University of Iowa, 1953.
Weshinskey, Roy K., Assistant Professor, M.S., Southern Illinois University, 1950.

Finance (College of Business and Administration)

Davids, Lewis E., Professor, Ph.D., New York University, 1949.
Elsaid, Hussein H., Professor, Ph.D., University of Illinois, 1968.
Kim, Sang-Hoon, Assistant Professor, Ph.D., University of Wisconsin, 1979.
Loy, L. David, Assistant Professor, Ph.D., University of Iowa, 1978.
Mathur, Iqbal, Associate Professor and *Chairperson,* Ph.D., University of Cincinnati, 1974.
Pertl, Mars A., Assistant Professor, Ph.D., University of Iowa, 1974.
Pflaum, Christopher C., Instructor, M.B.A., University of Miami, 1974.
Sarkar, Amitava, Assistant Professor, Ph.D., University of Pittsburgh, 1980.
Tyler, R. Stanley, Associate Professor, J.D., University of Illinois, 1952.
Vaughn, Donald E., Professor, Ph.D., University of Texas, 1961.
Waters, Gola E., Professor, J.D., University of Iowa, 1957, Ph.D., Southern Illinois University, 1970.

Foreign Languages and Literatures (College of Liberal Arts)

Aydt, Judith, Instructor, M.A., Southern Illinois University, 1966.
Beckman, Barbara, Assistant Professor, D.A., University of Washington, 1975.
Betz, Frederick, Assistant Professor, Ph.D., Indiana University, 1973.
Bork, Albert W., Professor, *Emeritus,* Doctor en Letras, National University of Mexico, 1944.
Canfield, D. Lincoln, Visiting Professor, *Emeritus,* Ph.D., Columbia University, 1934.
Davis, J. Cary, Professor, *Emeritus,* Ph.D., University of Chicago, 1936.
Epro, Margaret W., Assistant Professor, Ph.D., University of Pennsylvania, 1975.
French, Howard, Associate Professor, *Emeritus,* Ph.D., Indiana University, 1952.
Gillespie, John K., Visiting Assistant Professor, Ph.D., Indiana University, 1979.
Gobert, David L., Professor, Ph.D., University of Iowa, 1960.
Hartman, Steven Lee, Assistant Professor, Ph.D., University of Wisconsin, 1971.
Hartwig, Hellmut A., Professor, *Emeritus,* Ph.D., University of Illinois, 1943.
Keller, Thomas, Assistant Professor, Ph.D., University of Colorado, 1975.
Kilker, James, Associate Professor, Ph.D., University of Missouri at Columbia, 1961.
Kupcek, Joseph, Professor, Ph.D., Comenius University, Bratislava, Czechoslovakia, 1943.
Liedloff, Helmut, Professor, Ph.D., Phillips University, Germany, 1956.
McBride, Charles, Associate Professor, Ph.D., University of Texas, 1968.
Meinhardt, Warren, Associate Professor, Ph.D., University of California at Berkeley, 1965.
Neufeld, Anna K., Assistant Professor, *Emerita,* M.A., University of Kansas, 1937.
O'Brien, Joan, Associate Professor, Ph.D., Fordham University, 1961.
O'Meara, Maurice, Associate Professor, Ph.D., University of Iowa, 1967.
Orechwa, Olga, Associate Professor, Ph.D., Ukrainian Free University, Germany, 1970.
Peacock, Vera L., Professor, *Emerita,* Ph.D., Cornell University, 1930.
Speck, Charles, Assistant Professor, Laurea in Diritto Canonico, Pontifical Lateran University, Italy, 1963.
Tai, James, Associate Professor, Ph.D., Indiana University, 1970.
Timpe, Eugene F., Professor and *Chairperson,* Ph.D., University of Southern California, 1960.
Ulner, Arnold, Assistant Professor, Ph.D., University of Missouri at Columbia, 1972.
Vogely, Maxine, Assistant Professor, *Emerita,* Ph.D., University of Illinois, 1969.
Wilkinson, Mildred, Instructor, M.A., Southern Illinois University, 1965.
Williams, Frederick L., Assistant Professor, Ph.D., Cornell University, 1976.
Woodbridge, Hensley, Professor, Ph.D., University of Illinois, 1950.

Forestry (School of Agriculture)

Aubertin, Gerald M., Associate Professor, Ph.D., Pennsylvania State University, 1964.
Budelsky, Carl A., Assistant Professor, Ph.D., University of Arizona, 1969.
Burde, John H., III, Assistant Professor, Ph.D., University of Arizona, 1975.
Chilman, Kenneth C., Associate Professor, Ph.D., University of Michigan, 1972.
Chong, She K., Assistant Professor, Ph.D., University of Hawaii, 1979.
Fralish, James S., Associate Professor, Ph.D., University of Wisconsin, 1970.
Gaffney, Gerald R., Assistant Professor, Ph.D., Southern Illinois University, 1970.
Kung, Fan H., Associate Professor, Ph.D., Michigan State University, 1968.
McCurdy, Dwight R., Professor, Ph.D., Ohio State University, 1964.
Myers, Charles C., Associate Professor, Ph.D., Purdue University, 1966.

Roth, Paul L., Professor, Ph.D., Kansas State University, 1968.
Spalt, Howard A., Associate Professor and *Chairperson,* D. For., Yale University, 1959.
Weaver, George T., Associate Professor, Ph.D., University of Tennessee, 1972.
Yambert, Paul A., Professor, Ph.D., University of Michigan, 1961.

Geography (College of Liberal Arts)

Arey, David G., Associate Professor, Ph.D., Clark University, 1969.
Baumann, Duane D., Professor, Ph.D., Clark University, 1968.
Beazley, Ronald I., Professor, Ph.D., Purdue University, 1954.
Christensen, David E., Professor, Ph.D., University of Chicago, 1956.
Cunningham, Floyd, Professor, *Emeritus,* Ph.D., Clark University, 1930.
Horsley, A. Doyne, Assistant Professor, Ph.D., Southern Illinois University, 1974.
Irwin, Daniel R., Associate Professor, Ph.D., Syracuse University, 1972.
Jones, David L., Professor, Ph.D., Pennsylvania State University, 1960.
Krause, Annemarie, Associate Professor, *Emerita,* Ph.D., University of Chicago, 1952.
Lieber, Stanley R., Assistant Professor, Ph.D., University of Iowa, 1974.
Sharpe, David M., Associate Professor and *Chairperson,* Ph.D., Southern Illinois University, 1968.

Geology (College of Science)

Bell, Frank James, Assistant Professor, *Emeritus,* M.S., University of Nebraska, 1941.
Crelling, John C., Assistant Professor, Ph.D., The Pennsylvania State University, 1973.
Dutcher, Russell R., Professor and *Chairperson,* Ph.D., The Pennsylvania State University, 1960.
Fang, Jen-Ho, Professor, Ph.D., Pennsylvania State University, 1961.
Frank, Charles Otis, Assistant Professor, Ph.D., Syracuse University, 1973.
Fraunfelter, George H., Professor, Ph.D., University of Missouri, Columbia, 1964.
Harris, Stanley E., Jr., Professor, Ph.D., University of Iowa, 1947.
Hood, William C., Professor, Ph.D., University of Montana, 1964.
Mansfield, Charles F., Assistant Professor, Ph.D., Stanford University, 1972.
Ritter, Dale F., Professor, Ph.D., Princeton University, 1964.
Robinson, Paul D., Assistant Professor, M.S., Southern Illinois University, 1963.
Sendlein, Lyle V.A., Professor, Ph.D., Iowa State University, 1964.
Sverdrup, Keith, Assistant Professor, Ph.D., Scripps Institution of Oceanography, University of California-San Diego, 1981.
Utgaard, John E., Professor, Ph.D., Indiana University, 1963.
Zimmerman, Jay, Jr., Associate Professor, Ph.D., Princeton University, 1968.

Graphic Communications (School of Technical Careers)

Ashworth, Edwin Robert, Assistant Professor, Electronic Data Processing, Ph.D., Southern Illinois University, 1972.
Bleyer, Dorothy, Assistant Professor and *Director,* Graphic Communications, Ph.D., Southern Illinois University, 1977.
Boza, Gertrude, Visiting Instructor, Graphic Design, Fine Arts Degree, Syracuse University, 1932.
Caldwell, Paul N., Associate Professor, Electronics Technology, M.S.Ed., Southern Illinois University, 1965.
Davis, Diane R., Visiting Instructor, Secretarial and Office Specialties, M.S., Southern Illinois University, 1979.
Davis, L. Noel, Visiting Assistant Professor, Architectural Technology, B.S., University of Illinois, 1948.
Dawson, Leroy P., Assistant Professor, Architectural Technology, B.S., University of Illinois, 1976.
Delmastro, Edwin V., Instructor, Photographic and Audio-Visual Technology and Commercial Graphics Production.
Fahlsing, Theodore E., Assistant Professor, Electronics Technology, M.S., Southern Illinois University, 1978.
Fisher, Valerie, Instructor, Secretarial and Office Specialties, M.S., Southern Illinois University, 1975.
Gimenez, Atilio M., Assistant Professor, Architectural Technology, M.Arch., University of Buenos Aires, 1964.
Greathouse, Lillian, Assistant Professor and *Assistant Dean,* Secretarial and Office Specialties, M.A., Southern Illinois University, 1970.

Griffith, John R., Visiting Instructor, Electronic Data Processing, B.S., Southern Illinois University, 1977.
Hampton, Robbye Joanna, Visiting Instructor, Mathematics, M.S., Southern Illinois University, 1965.
Harre, Paul A., Assistant Professor and *Coordinator,* Electronics Technology, M.S., Southern Illinois University, 1974.
Hengehold, Larry, Adjunct Assistant Professor, Electronic Data Processing, M.S., Southern Illinois University, 1968.
Hill, Marvin P., Professor, *Emeritus,* M.S., University of Colorado, 1939.
Hoeveler, George, Assistant Professor, Commercial Graphics-Design, B.S., University of Wisconsin at Madison, 1942.
Huck, John H., Adjunct Assistant Professor, Electronic Data Processing, M.A., Southern Illinois University, 1970.
Humphries, James T., Assistant Professor, Electronics Technology, M.S., Southern Illinois University, 1979.
Johnson, Byron V., Assistant Professor and *Coordinator,* Electronic Data Processing, S.T.M., McCormick Theological Seminary, 1969.
Kearns, Helene P., Instructor, Electronic Data Processing, B.A., University of Massachusetts, 1974.
Klemm, Robert W., Assistant Professor, Electronics Technology, M.A. in Ed., Arizona State University, 1977.
Lach, Norman, Assistant Professor, Architectural Technology, M.Arch., University of Illinois, 1974.
Ladner, Joel Brooks, Assistant Professor, Architectural Technology, B.Arch., University of Houston, 1966.
Little, Harold E., Associate Professor, Architectural Technology, B.S., Pennsylvania State University, 1951.
Mailloux, Lawrence, Assistant Professor, Commercial Graphics-Design, B.F.A., Rhode Island School of Design, 1947.
Middleton, Joe Riley, Visiting Instructor, Electronics Technology, B.S., Southern Illinois University, 1979.
Miriani, Theresa B., Associate Professor, *Emerita,* Secretarial and Office Specialties, M.S., University of Denver, 1946.
Morgan, Barbara, Assistant Professor, Secretarial and Office Specialties, M.S.Ed., Southern Illinois University, 1972.
Morse, H. Pauletta, Assistant Professor, Secretarial and Office Specialties, M.S., Southern Illinois University, 1975.
Muthukrishnan, Shankar, Assistant Professor, Electronics Technology, M.S. (E.E.), University of Bombay, 1972.
Novak, Mary Ann, Visiting Assistant Professor, Secretarial and Office Specialties, M.S., Southern Illinois University, 1979.
Payne, Michael A., Assistant Professor and *Coordinator,* Secretarial and Office Specialties, M.S., Southern Illinois University, 1974.
Richey, Helen E., Assistant Professor, Secretarial and Office Specialties, M.S.Ed. Southern Illinois University, 1953.
Rodgers, Larry W., Visiting Instructor, Electronics Technology, B.S., Southern Illinois University, 1977.
Rutledge, Clifton D., Associate Professor, Architectural Technology, M.Arch., Kansas State University, 1968.
Schindler, Richard, Instructor, Commercial Graphics-Design, A.A., Southern Illinois University, 1973.
Schoen, Janice S., Assistant Professor, Secretarial and Office Specialties, M.Ed., University of Illinois, 1970.
Sheets, Leslie P., Assistant Professor, Electronics Technology, M.S.Ed., Southern Illinois University, 1976.
Shin, Wangshik, Assistant Professor, Secretarial and Office Specialties, M.A., Southern Illinois University, 1963.
Shupe, William G., Assistant Professor, Electronics Technology, M.S., Southern Illinois University, 1977.
Trotter, Gene E., Associate Professor and *Coordinator,* Architectural Technology, B.S., North Dakota State University, 1939.
Vaughn, F. Eugene, Associate Professor, Secretarial and Office Specialties, M.S.Ed., Southern Illinois University, 1961.
Watson, Philip C., Instructor, Physics, M.S., Southern Illinois University.
White, Mindy P., Assistant Professor, Secretarial and Office Specialties, M.S., Southern Illinois University, 1976.
White, Robert, Assistant Professor, Photographic and Audio-Visual Technology and Commercial Graphics-Production, M.S., Southern Illinois University, 1962.
Williams, Kathryn L., Visiting Instructor, Secretarial and Office Specialties, B.S., Southern Illinois University, 1977.
Yack, John L., Associate Professor, Commercial Graphics, M.F.A., University of Oklahoma, 1959.

Guidance and Educational Psychology (College of Education)

Altekruse, Michael K., Professor, Ed.D., Indiana University, 1967.
Amble, Bruce Roy, Professor, Ph.D., University of Iowa, 1963.
Bardo, Harold R., Associate Professor, Ph.D., Southern Illinois University, 1972.
Beggs, Donald L., Professor, Ph.D., University of Iowa, 1966.
Bradley, Richard W., Professor, Ph.D., University of Wisconsin, 1968.
Cody, John J., Professor, Ph.D., University of Wisconsin, 1961.
Deichmann, John W., Associate Professor, Ph.D., St. Louis University, 1969.
DeWeese, Harold L., Professor, *Emeritus,* Ed.D., University of Illinois, 1959.
Elmore, Patricia B., Associate Professor, Ph.D., Southern Illinois University, 1970.
Evans, John Reaves, Associate Professor, Ph.D., Southern Illinois University, 1968.
Graham, Jack W., Professor, Ph.D., Purdue University, 1951.
Grenfell, John E., Professor, Ed.D., Oregon State University, 1966.
Ideus, Harvey S., Associate Professor, Ed.D., University of Wyoming, 1965.
Kelly, Francis J., Professor, Ph.D., University of Texas, 1963.
Leitner, Dennis, Associate Professor, Ph.D., University of Maryland, 1975.
Lewis, Ernest, Professor and *Chairperson,* Ph.D., Southern Illinois University,1971.
Lindsey, Jefferson F., Professor, Ed.D., University of Texas, 1962.
Meek, Clinton Roscoe, Professor, Ph.D., George Peabody College for Teachers, 1954.
Mouw, John T., Associate Professor, Ed.D., University of South Dakota, 1968.
Pohlmann, John T., Associate Professor, Ph.D., Southern Illinois University, 1972.
Renzaglia, Guy A., Professor, *Emeritus,* Ph.D., University of Minnesota, 1952.
Snowman, Jack, Assistant Professor, Ph.D., Indiana University, 1975.
White, Gordon, Assistant Professor, Ph.D., University of Iowa, 1969.
Wickersham, Beverly, Assistant Professor, Ph.D., University of Iowa, 1974.
Woehlke, Paula L., Assistant Professor, Ph.D., Arizona State University, 1973.
Yates, J. W., Professor, Ed.D., University of Missouri, Columbia, 1951.

Health Education (College of Education)

Aaron, James E., Professor, Ed.D., New York University, 1960.
Belcastro, Philip A., Assistant Professor, Ph.D., Ohio State University, 1980.
Boydston, Donald N., Professor and *Chairperson,* Ed.D., Columbia University, 1949.
Bridges, A. Frank, Professor, *Emeritus,* D.H.S., Indiana University, 1952.
Casey, Ralph, Associate Professor, *Emeritus,* Ed.D., Columbia University, 1956.
Denny, Florence E., Associate Professor, *Emerita,* M.A., Columbia University, 1935.
Duncan, David F., Associate Professor, D.P.H., University of Texas at Houston, 1976.
Gold, Robert S., Associate Professor, Ph.D., University of Oregon, 1976.
Grissom, Deward K., Professor, *Emeritus,* Ed.D., Columbia University, 1952.
Hailey, Robert, Instructor, M.Ed., University of Missouri, Columbia, 1959.
Iubelt, George, Instructor, M.S., Indiana University, 1954.
Jones, Richard, Instructor, M.S.Ed., Southern Illinois University, 1966.
LeFevre, John R., Professor, Ed.D., Teachers College, Columbia University, 1950.
Lindauer, Larry, Assistant Professor, Ph.D., Southern Illinois Unversity, 1972.
Phillips, Frances K., Associate Professor, *Emerita,* M.A., Columbia University, 1940.
Richardson, Charles E., Professor, Ed.D., University of California, Los Angeles, 1959.
Ritzel, Dale, Professor, Ph.D., Southern Illinois University, 1970.
Russell, Robert D., Professor, Ed.D., Stanford University, 1954.
Sliepcevich, Elena M., Professor, D.P.E., Springfield College, 1955.
Steele, Robert, Instructor, M.S.Ed., Southern Illinois University, 1963.
Vaughn, Andrew T., Professor, D.Ed., Columbia University, 1958.
Vitello, Elaine, Visiting Assistant Professor, Ph.D., Southern Illinois University at Carbondale, 1977.
Vogel, Herbert, Instructor, M.S., Indiana University, 1954.
Zunich, Eileen M., Assistant Professor, Ph.D., Southern Illinois University, 1970.

Higher Education (College of Education)

Adams, Frank C., Professor, *Emeritus,* Ph.D., Southern Illinois University, 1962.
Caldwell, Oliver J., Professor, *Emeritus,* M.S., Oberlin College, 1927.

Casebeer, Arthur L., Professor, Ed.D., Oregon State University, 1963.
Cushman, Martelle L., Adjunct Professor, Ph.D., Cornell University, 1946.
Davis, I. Clark, Professor, *Emeritus,* Ed.D., Indiana University, 1956.
Dingerson, Michael R., Assistant Professor, Ph.D., Southern Illinois University, 1974.
Graham, Jack W., Professor, Ph.D., Purdue University, 1951.
Grinnell, John E., Professor, *Emeritus,* Ph.D., Stanford University, 1934.
Hawley, John B., Professor, Ph.D., University of Michigan, 1957.
Jung, Loren B., Professor, Ph.D., Southern Illinois University, 1969.
Keene, Roland, Professor, Ed.D., Washington University, 1962.
King, John E., Professor and *Chairperson,* Ph.D., Cornell University, 1941.
Morrill, Paul H., Professor, Ph.D., Northwestern University, 1956.
Pratt, Arden L., Professor, Ph.D., State University of New York at Buffalo, 1968.
Spees, Emil R., Assistant Professor, Ph.D., Claremont Graduate School, 1969.
Stonewater, Barbara B., Visiting Assistant Professor, Ph.D., Michigan State University, 1977.
Swinburne, Bruce R., Associate Professor, Ed.D., Indiana University, 1970.
Tolle, Donald J., Professor, Ed.D., Florida State University, 1957.
Zimmerman, Elwyn, Assistant Professor, Ph.D., Michigan State University, 1963.

History (College of Liberal Arts)

Adams, George W., Professor, *Emeritus,* Ph.D., Harvard University, 1946.
Allen, Howard W., Professor, Ph.D., University of Washington, 1959.
Ammon, Harry, Professor and *Chairperson,* Ph.D., University of Virginia, 1948.
Barton, H. Arnold, Professor, Ph.D., Princeton University, 1962.
Batinski, Michael C., Assistant Professor, Ph.D., Northwestern University, 1969.
Brehm, Donald L., Assistant Professor, Ph.D., St. Louis University, 1968.
Carrott, M. Browning, Associate Professor, Ph.D., Northwestern University, 1966.
Clifford, John R., Associate Professor, Ph.D., University of Iowa, 1954.
Conrad, David E., Associate Professor, Ph.D., University of Oklahoma, 1962.
Detwiler, Donald S., Professor, Dr. Phil., Göttingen University, Germany, 1961.
Dotson, John E., Assistant Professor, Ph.D., Johns Hopkins University, 1969.
Fladeland, Betty L., Professor, Ph.D., University of Michigan, 1952.
Gardiner, C. Harvey, Professor, *Emeritus,* Ph.D., University of Michigan, 1945.
Gold, Robert L., Professor, Ph.D., University of Iowa, 1964.
Kuo, Ping-Chia, Professor, *Emeritus,* Ph.D., Harvard University, 1933.
McFarlin, Harold A., Assistant Professor, Ph.D., Indiana University, 1971.
Murphy, James B., Associate Professor, Ph.D., Louisiana State University, 1968.
O'Day, Edward J., Instructor, A.M., Indiana University, 1956.
Shelby, Lon R., Professor, Ph.D., University of North Carolina, 1962.
Simon, John Y., Professor, Ph.D., Harvard University, 1961.
Vyverberg, Henry S., Professor, Ph.D., Harvard University, 1950.
Werlich, David P., Associate Professor, Ph.D., University of Minnesota, 1968.
Wright, John I., Associate Professor, *Emeritus,* A.M., University of Chicago, 1933.
Wu, Tien-Wei, Professor, Ph.D., University of Maryland, 1965.
Zucker, Stanley, Associate Professor, Ph.D., University of Wisconsin, 1968.

Human Development (College of Human Resources)

Barnes, Mary Louise, Assistant Professor, *Emerita,* M.S., Iowa State College, 1931.
Becker, Henrietta, Lecturer, *Emerita,* M.S., Southern Illinois University, 1964.
Bernard, Barbara H., Assistant Professor, Ph.D., Southern Illinois University, 1972.
Brooks, Thomas M., Professor, Ph.D., Pennsylvania State University, 1961.
Cude, Brenda J., Assistant Professor, Ph.D., Purdue University, 1978.
Eddleman, E. Jacqueline, Assistant Professor, Ph.D., Southern Illinois University, 1970.
Endres, Jeannette M., Associate Professor, Ph.D., St. Louis University, 1972.
Gulley, S. Beverly, Assistant Professor, Ph.D., Southern Illinois University, 1974.
Harper, Jenny M., Professor, *Emerita,* Ph.D., Cornell University, 1941.
Jones, Jennie Y., Assistant Professor, A.M., University of Illinois, 1949.
Konishi, Frank, Professor, Ph.D., Cornell University, 1958.
McMullen, Elsa A., Associate Professor and *Director,* Ph.D., University of North Carolina at Greensboro, 1974.
Payne, Irene R., Professor, Ph.D., Cornell University, 1960.
Ponton, Melva F., Assistant Professor, M.S., University of Illinois, 1951.
Quigley, Eileen, Professor, *Emerita,* Ed.D., University of Missouri, 1947.

Rogers, Shirley M., Assistant Professor, M.S.Ed., Southern Illinois University, 1961.
Walker, Rosemary, Assistant Professor, Ph.D., Purdue University, 1978.
Zunich, Michael, Professor, Ph.D., Florida State University, 1959.

Journalism (College of Communications and Fine Arts)

Atwood, Erwin L., Professor, Ph.D., University of Iowa, 1965.
Brown, George C., Professor, Ph.D., Southern Illinois University, 1963.
Clayton, Charles C., Professor, *Emeritus*, B.J., University of Missouri, 1925.
Combs, Adrian H., Lecturer, M.A., Southern Illinois University, 1975.
Ford, James L. C., Professor, *Emeritus*, Ph.D., University of Minnesota, 1948.
Frazier, Mary K., Assistant Professor, *Emerita*, M.S., Southern Illinois University, 1965.
Gruny, C. Richard, Assistant Professor, J.D., University of Illinois, 1959.
Harmon, William M., Adjunct Instructor, M.S., Oklahoma State University, 1965.
Hart, Jim Allee, Professor, *Emeritus*, Ph.D., University of Missouri, 1959.
Long, Howard R., Professor, *Emeritus*, Ph.D., University of Missouri, 1948.
Lyons, William H., Assistant Professor, *Emeritus*, M.A., University of Colorado, 1935.
McCoy Ralph E., Professor, *Emeritus*, Ph.D., University of Illinois, 1956.
Mendenhall, Harlan H., Lecturer, B.A., University of Oklahoma, 1937.
Morgan, Hugh J., Instructor, M.A., University of Oklahoma, 1967.
Murphy, James E., Assistant Professor, Ph.D., University of Iowa, 1974.
Murphy, Sharon M., Associate Professor, Ph.D., University of Iowa, 1973.
Nelson, Harold E., Lecturer, B.S., Kansas State University, 1939.
Rice, W. Manion, Associate Professor, Ph.D., Southern Illinois University, 1967.
Stone, Vernon A., Professor and *Director*, Ph.D., University of Wisconsin, 1966.
Stonecipher, Harry W., Associate Professor, Ph.D., Southern Illinois University, 1971.
Trager, Robert E., Associate Professor, Ph.D., University of Minnesota, 1972.

Latin American Studies Committee

Adams, Kendall A., Professor, Ph.D., Michigan State University, 1962 (Department of Marketing).
Doerr, William A., Assistant Professor, Ph.D., Southern Illinois University, 1973 (Department of Agricultural Education and Mechanization).
Garner, William R., Associate Professor, Ph.D., Tulane University, 1963 (Department of Political Science).
Gold, Robert L., Professor, Ph.D., University of Iowa, 1964 (Department of History).
Gumerman, George J., Professor, Ph.D., University of Arizona, 1969 (Department Of Anthropology).
Hartman, Steven Lee, Assistant Professor, Ph.D., University of Wisconsin, 1971 (Department of Foreign Languages and Literatures).
Kilker, James, Professor, Ph.D., University of Missouri at Columbia, 1961 (Department of Foreign Languages and Literatures).
McBride, Charles, Associate Professor, Ph.D., University of Texas, 1968 (Department of Foreign Languages and Literatures).
Marquez-Sterling, Carlos, Assistant Professor, D.L., Havana University, 1952. (Library).
Marquez-Sterling, Mariana, Assistant Professor, D.L., Havana University, 1954 (Library).
Meinhardt, Warren, Associate Professor, Ph.D., University of California at Berkeley, 1965 (Department of Foreign Languages and Literatures).
Rands, Robert L., Professor, Ph.D., Columbia University, 1952 (Department of Anthropology).
Riley, Carroll L., Professor, Ph.D., University of New Mexico, 1952 (Department of Anthropology).
Ugent, Donald, Associate Professor, Ph.D., University of Wisconsin, 1966 (Department of Botany).
Ulner, Arnold, Assistant Professor, Ph.D., University of Missouri at Columbia, 1972 (Department of Foreign Languages and Literatures).
Werlich, David P., Associate Professor, Ph.D., University of Minnesota, 1968 (Department of History); *Chairperson*, Latin American Studies Advisory Committee.
Wilkinson, Mildred, Instructor, M.A., Southern Illinois University, 1965 (Department of Foreign Languages and Literatures).
Woodbridge, Annie S., Researcher, M.A., George Peabody College for Teachers, 1936 (Library).
Woodbridge, Hensley, Professor, Ph.D., University of Illinois, 1950 (Department of Foreign Languages and Literatures).

Library

Bauner, Ruth E., Associate Professor, Ph.D., Southern Illinois University, 1978.
Baysinger, Patricia, Researcher, B.A., Southern Illinois University, 1970.
Bedient, Douglas, Assistant Professor, Ph.D., Southern Illinois University, 1971.
Black, George W., Jr., Associate Professor, M.S.L.S., Columbia University, 1966.
Bork, Elizabeth V., Instructor, B.A., University of Southern California, 1955.
Boydston, Jo Ann, Professor, Ph.D., Columbia University, 1950.
Brown, F. Dale, Assistant Professor, Ph.D., Southern Illinois University, 1978.
Cashore, Thomas J., Assistant Professor, M.S., University of Wisconsin, 1975.
Chervinko, James S., Assistant Professor, M.S.L.S., University of Illinois, 1973.
Clark, Charlotte R., Instructor, A.B.L.S., University of Michigan, 1940.
Cluff, E. Dale, Associate Professor, Ph.D., University of Utah, 1976.
Cohn, Alan M., Professor, M.S., University of Illinois, 1955.
Cook, Margaret K., Assistant Professor, Ph.D., Southern Illinois University, 1977.
Coscarelli, William C., Assistant Professor, Ph.D., Indiana University, 1977.
Cox, Shelley M., Instructor, M.A.L.S., University of Chicago, 1973.
Crane, Lilly E., Assistant Professor, M.A.L.S., University of Michigan, 1967.
Cummings, Hilary A., Researcher, B.A., Southern Illinois University, 1973.
Denzel, Harry, Assistant Professor, Ph.D., Southern Illinois University, 1971.
Eads, D. Kathleen, Assistant Profesor, M.S., University of Illinois, 1949.
Fagerstrom, David M., Instructor, M.L.S., University of Maryland, 1974.
Fahey, Kathleen G., Assistant Professor, M.L.S., University of Minnesota, 1968.
Fox, James W., Assistant Professor, M.A., University of North Carolina, 1974.
Fox, Mary Anne, Assistant Professor, M.S.L.S., University of North Carolina, 1975.
Harwood, Judith Ann, Assistant Professor, M.S., University of Illinois, 1965.
Hildreth, Margaret, H., Assistant Professor, M.L.S., State University of New York at Geneseo, 1970.
Holliday, Charles L., Assistant Professor, M.S., University of Illinois, 1964.
Hostetler, Jerry, Assistant Professor, Ph.D., Southern Illinois University, 1977.
Hutton, Betty Jean, Instructor, M.S. in Ed., Southern Illinois University, 1968.
Isbell, Mary K., Instructor, M.S., Southern Illinois University, 1971.
Jenkins, Darrell L., Assistant Professor, M.A., New Mexico State University, 1976.
Juhlin, Alton P., Assistant Professor, A.M.L.S., University of Michigan, 1946.
Keel, Robert L., Assistant Professor, M.A.L.S., George Peabody College for Teachers, 1961.
Kilpatrick, Thomas L., Assistant Professor, M.S., University of Illinois, 1963.
Koch, David V., Assistant Professor, M.A., Southern Illinois University, 1963.
Lampman, Wilma L., Assistant Professor, M.S., Southern Illinois University, 1962.
Levine, Barbara, Researcher, M.A., Northwestern University, 1960.
Lockrem, Emily Jane, Assistant Professor, M.A., University of Wisconsin, 1976.
Marquez-Sterling, Carlos, Assistant Professor, D.L., Havana University, 1952.
Marquez-Sterling, Mariana, Assistant Professor, D.L., Havana University, 1954.
Marrero, Betty Ruth, Assistant Professor, M.A., George Peabody College for Teachers, 1957.
Marrero, Carlos E., Instructor, M.A., University of Denver, 1961.
Martinsek, Catherine W., Researcher, M.A., University of California at Los Angeles, 1950.
Matson, Susan A., Assistant Professor, Ph.D., University of Wisconsin, 1972.
Matthews, Elizabeth W., Associate Professor, Ph.D., Southern Illinois University, 1972.
Matthews, Sidney E., Associate Professor, M.S., University of Illlinois, 1952.
Morrow, Carolyn, Visiting Assistant Professor, M.L.S., University of Illinois, 1977.
Otto, Theophil M., Assisant Professor, M.L.S., Indiana University, 1972.
Person, Roland C., Assistant Professor, M.A., University of Wisconsin, 1970.
Peterson, Kenneth G., Professor, Ph.D., University of California at Berkley, 1968.
Pixley, Lorene, Instructor, M.S., University of Illinois, 1960.
Poteet, Susan S., Assistant Professor, M.L.S., George Peabody College, 1970.
Poulos, Kathleen E., Researcher, M.S. in Ed., Southern Illinois University, 1969.
Ray, Jean Meyer, Associate Professor, M.A., Southern Illinois University, 1976.
Russell, Thyra K., Assistant Professor, M.A., Northern Illinois University, 1972.
Scott, W. Wiley, Instructor, M.S.L.S., Western Reserve University, 1959.
Sharpe, Anne S., Researcher, B.F.A., Syracuse University, 1960.
Simon, Harriet F., Researcher, Ed.M., Harvard Graduate School of Education, 1956.
Simon, John Y., Professor, Ph.D., Harvard University, 1961.
Starns, Matilda T., Instructor, M.S., University of Illinois, 1963.
Stonewater, Jerry K., Assistant Professor, Ph.D., Michigan State University, 1977.
Stubbs, Walter R., Instructor, M.A., Northern Illinois University, 1968.

Tax, Andrew T., Assistant Professor, M.L.S., Charles University, Prague, 1962.
Tharp, Charles C., Instructor, M.S.L.S., University of Illinois, 1951.
Walsh, Bridget A., Researcher, M.A., Catholic University of America, 1967.
Wilson, David L., Research Associate, Ph.D., University of Tennessee, 1974.
Winsor, Donald L., Associate Professor, Ed.D., University of Florida, 1961.
Wood, Don E., Assistant Professor, M.S., University of Illinois, 1965.
Woodbridge, Annie S., Researcher, M.A., George Peabody College for Teachers, 1936.
Wursten, Richard B., Assistant Professor, M.S., University of Illinois, 1978.

Linguistics (College of Liberal Arts)

Carrell, Patricia L., Associate Professor and *Chairperson,* Ph.D., University of Texas at Austin, 1966.
Gilbert, Glenn G., Professor, Ph.D., Harvard University, 1963.
Konneker, Beverly Hill, Assistant Professor, Ph.D., University of Texas at Austin, 1972.
Nguyen, Dinh-Hoa, Professor, Ph.D., New York University, 1956.
Parish, Charles, Professor, Ph.D., University of New Mexico, 1959.
Perkins, Allen Kyle, Assistant Professor, Ph.D., University of Michigan at Ann Arbor, 1976.
Redden, James E., Professor, Ph.D., Indiana University, 1965.
Silverstein, Raymond O., Assistant Professor, Ph.D., University of California at Los Angeles, 1973.

Marketing (College of Business and Administration)

Adams, Kendall A., Professor, Ph.D., Michigan State University, 1962.
Andersen, R. Clifton, Professor, D.B.A., Indiana University, 1960.
Anderson, Carol M., Instructor, M.B.A., Texas A & M University, 1978.
Bergiel, Blaise, Instructor, M.B.A., Clarion State, 1976.
Darling, John R., Jr., Professor, Ph.D., University of Illinois, 1967.
Dommermuth, William P., Professor, Ph.D., Northwestern University, 1964.
Hindersman, Charles H., Professor, D.B.A., Indiana University, 1959.
Moore, James R., Assistant Professor, Ph.D., University of Illinois, 1972.
Perry, Donald L., Associate Professor, Ph.D., University of Illinois, 1966.
Raveed, Sion, Assistant Professor, D.B.A., Indiana University, 1976.
Rosenbarger, Charles E., Assistant Professor, *Emeritus,* M.B.A., Indiana University, 1954.
Summey, John H., Assistant Professor, D.B.A., Arizona State University, 1974.
Taylor, Ronald D., Assistant Professor, Ph.D., North Texas State University, 1978.
Viswanathan, R., Instructor, M.A., Western New Mexico University, 1971.
Walters, C. Glenn, Professor and *Chairperson,* Ph.D., University of Illinois, 1964.

Mathematics (College of Liberal Arts)

Amayo, Ralph, Associate Professor, Ph.D., University of Warwick, 1972.
Baartmans, Alphonse H., Associate Professor and *Chairperson,* Ph.D., Michigan State University, 1967.
Beckemeyer, Imogene C., Assistant Professor, M.A., Southern Illinois University, 1952.
Black, Amos H., Professor, *Emeritus,* Ph.D., Cornell University, 1932.
Bouwsma, Ward, Associate Professor, Ph.D., University of Michigan, 1962.
Burton, Theodore A., Professor, Ph.D., Washington State University, 1964.
Carmony, Lowell, Assistant Professor, Ph.D., Southern Illinois University at Carbondale, 1976.
Crenshaw, James A., Associate Professor, Ph.D., University of Illinois, 1967.
Danhof, Kenneth, Associate Professor, Ph.D., Purdue University, 1969.
Dharmadhikari, Sudhakar, Professor, Ph.D., University of California at Berkeley, 1962.
Elston, George, Instructor, M.S., University of Wisconsin, 1949.
Feinsilver, Philip, Assistant Professor, Ph.D., New York University, 1975.
Foland, Neal E., Professor, Ph.D., University of Missouri, 1961.
Gates, Leslie D., Associate Professor, Ph.D., Iowa State University, 1952.
Gregory, John, Associate Professor, Ph.D., University of California at Los Angeles, 1969.
Grimmer, Ronald C., Professor, Ph.D., University of Iowa, 1967.
Hall, Dilla, Associate Professor, *Emeritus,* Ph.D., St. Louis University, 1955.
Hooker, John W., Assistant Professor, Ph.D., University of Oklahoma, 1967.

Hunsaker, Worthen N., Associate Professor, Ph.D., Washington State University, 1966.
Kammler, David, Professor, Ph.D., University of Michigan, 1971.
Kirk, Ronald B., Professor, Ph.D., California Institute of Technology, 1968.
Koch, Charles, Assistant Professor, Ph.D., University of Illinois, 1961.
Kuipers, Lauwerens, Professor, *Emeritus,* Ph.D., Vrije Universiteit (Amsterdam), 1947.
Langenhop, Carl E., Professor, Ph.D., Iowa State University, 1948.
Mark, Abraham M., Professor, Ph.D., Cornell University, 1947.
Maxwell, Charles, Professor, Ph.D., University of Illinois, 1955.
McDaniel, Wilbur C., Professor, *Emeritus,* Ph.D., University of Wisconsin, 1939.
Millman, Ann Miller, Adjunct Assistant Professor, Ph.D., St. Louis University, 1972.
Millman, Richard, Professor, Ph.D., Cornell University, 1971.
Moore, Robert A., Associate Professor, Ph.D., Indiana University, 1962.
Nathanson, Melvyn B., Professor, Ph.D., University of Rochester, 1971.
Olmsted, John M. H., Professor, *Emeritus,* Ph.D., Princeton University, 1940.
Paine, Thomas B., Assistant Professor, Ph.D., University of Oregon, 1966.
Panchapakesan, S., Associate Professor, Ph.D., Purdue University, 1969.
Parker, George D., Associate Professor, Ph.D., University of California at San Diego, 1971.
Patula, William T., Associate Professor, Ph.D., Carnegie-Mellon University, 1972.
Pedersen, Franklin D., Associate Professor, Ph.D., Tulane University, 1967.
Pedersen, Katherine, Assistant Professor, Ph.D., Tulane University, 1969.
Redmond, Donald, Assistant Professor, Ph.D., University of Illinois, 1976.
Seldin, Jonathan P., Assistant Professor, Ph.D., University of Amsterdam, 1968.
Skalsky, Michael, Professor, D.Nat.Sc., University of Göttingen, 1949.
Slechticky, James L., Instructor, *Emeritus,* M.S., Washington University, 1940.
Snyder, Herbert H., Professor, Ph.D., Lehigh University, 1965, Ph.D., University of South Africa, 1972.
Starks, Thomas H., Associate Professor, Ph.D., Virginia Polytechnic Institute, 1959.
Wilson, Joseph C., Professor, Ph.D., Louisiana State University, 1954.
Wimp, Larry L., Assistant Professor, *Emeritus,* M.A., University of Missouri, 1940, M.S., Southern Illinois University, 1959.
Wright, Alice K., Assistant Professor, *Emerita,* M.A., University of Illinois, 1925.
Zeman, Marvin, Assistant Professor, Ph.D., New York University (Courant Institute), 1974.

Microbiology (College of Science)

Borgia, Peter, Assistant Professor, Ph.D., University of Illinois, 1973.
Caster, John, Assistant Professor, Ph.D., St. Louis University, 1968.
Cooper, Morris D., Assistant Professor, Ph.D., University of Georgia at Athens, 1971.
Jackson, Robert, Professor, Ph.D., Purdue University, 1963.
Lev, Meir, Professor, Ph.D., University of Reading (England), 1957.
Lindegren, Carl C., Professor, *Emeritus,* Ph.D., California Institute of Technology, 1931.
Madigan, Michael T., Ph.D., University of Wisconsin, 1976.
McClary, Dan O., Professor, Ph.D., Washington University, 1951.
Moticka, Edward A., Associate Professor, Ph.D., University of Illinois at the Medical Center, 1970.
Myers, Walter L., Professor, D.V.M., Ph.D., University of Wisconsin, 1961.
Parker, Jack M., Assistant Professor, Ph.D., Purdue University, 1973.
Rouhandeh, Hassan, Professor, Ph.D., Kansas State University, 1959.
Rowan, Dighton F., Professor, Ph.D., Stanford University, 1954.
Shechmeister, Isaac L., Professor, *Emeritus,* Ph.D., University of California at Berkeley, 1949.
Tewari, Ram, Professor, D.V.M., Agra University, India, 1960; PhR., Ohio State University, 1966.

Mining Engineering (College of Engineering and Technology)

Chugh, Yoginder P., Associate Professor, Ph.D., Pennsylvania State University, 1971.
Sinha, Atmesh K., Associate Professor, Ph.D., University of Sheffield, 1963.

Music (College of Communications and Fine Arts)

Barwick, Steven, Professor, Ph.D., Harvard University, 1949.
Bateman, Marianne Webb, Professor, M.Mus., University of Michigan, 1959.

Beattie, Donald, Visiting Assistant Professor, M.Mus., University of Colorado, 1977.
Bergt, Robert, Associate Professor, S.T.M., Concordia Seminary, 1958.
Bliven, Frank, Instructor, M.A., Western Washington State College, 1976.
Bottje, Will Gay, Professor, A.Mus.D., Eastman School of Music, 1955.
Coker, Wilson W., Professor, D.M.A., University of Illinois, 1965.
Dees, William, Visiting Assistant Professor, M.M., Southern Illinois University at Edwardsville, 1979.
Denker, Fred, Professor, *Emeritus,* Ph.D., Eastman School of Music, 1951.
Fligel, Charles, Assistant Professor, M.M., University of Kentucky, 1966.
Gordon Roderick, Professor, Ph.D., University of Wisconsin, 1953.
Grizzell, Mary Jane, Assistant Professor, M.Mus., Eastman School of Music, 1943.
Hanes, Michael, Assistant Professor, M.M.E., Southern Illinois University, 1965.
Hartline, Elisabeth, Assistant Professor, *Emerita,* M.Mus., Northwestern University, 1936.
House, Mary Elaine Wallace, Professor, *Emerita,* M.Mus., University of Illinois, 1954.
Hunt, C. B., Jr., Professor, Ph.D., University of California, Los Angeles, 1949.
Hussey, George, Associate Professor, M.A.Ed., Washington University, 1963.
Kingsbury, Robert, Associate Professor, M.Mus., Northwestern University, 1952.
Lemasters, Donald, Instructor, M.Mus., Northwestern University, 1949.
McHugh, Catherine, Professor, Ed.D., Columbia University, 1959.
McIntosh, David, Associate Professor, *Emeritus,* M.A., University of Iowa, 1935.
Mellado, Daniel, Assistant Professor, Ph.D., Michigan State University, 1979.
Mueller, Robert, Professor, Ph.D., Indiana University, 1954.
Nadaf, George, Visiting Lecturer, M.M., Manhattan School of Music, 1956.
Olsson, Phillip, Professor, M.Mus., Chicago Conservatory, 1949.
Poulos, Helen, Assistant Professor, D.M., Indiana University, 1971.
Resnick, Robert, Professor, M.Mus., Wichita State University, 1949.
Romersa, Henry, Visiting Associate Professor, M.M.Ed., Oberlin College, 1955.
Siener, Melvin, Associate Professor, M.A., University of Iowa, 1954.
Simmons, Margaret, Visiting Assistant Professor, M.M., University of Illinois, 1976.
Stich-Randall, Teresa, Visiting Professor, Hartford Conservatory, 1948.
Taylor, Charles, Associate Professor, Ed.D., Columbia University, 1950.
Underwood, Jervis, Associate Professor, Ph.D., North Texas State University, 1970.
Valk, Alexis, Instructor, M.M., Ball State University, 1972.
Vogler, Helen M., Instructor, *Emerita.*
Weiss, Robert, Visiting Instructor, M.S., University of Illinois, 1974.
Werner, Kent, Associate Professor, Ph.D., University of Iowa, 1966.
Wharton, John, Associate Professor, *Emeritus,* M.Mus., American Conservatory, 1940.
Williams, David N., Assistant Professor, M.Mus., University of Wichita, 1964.

Philosophy (College of Liberal Arts)

Clarke, David S., Jr., Professor, Ph.D., Emory University, 1964.
Diefenbeck, James A., Professor and *Chairperson,* Ph.D., Harvard University, 1950.
Eames, Elizabeth R., Professor, Ph.D., Bryn Mawr College, 1951.
Eames, S. Morris, Professor, Ph.D., University of Chicago, 1958.
Frondizi, Risieri, Professor *Emeritus,* Ph.D., National University of Mexico, 1950.
Gillan, Garth J., Associate Professor, Ph.D., DuQuesne University, 1966.
Hahn, Lewis E., Professor, *Emeritus,* Ph.D., University of California, 1939.
Hayward, John, Professor, Ph.D., University of Chicago, 1949.
Howie, John, Associate Professor, Ph.D., Boston University, 1965.
Johnson, Mark, Assistant Professor, Ph.D., University of Chicago, 1977.
Kelly, Matthew J., Associate Professor, Ph.D., University of Notre Dame, 1963.
Liu, Shu-Hsien, Professor, Ph.D., Southern Illinois University, 1966.
McClure, George T., Professor, Ph.D., Ohio State University, 1958.
Moore, Willis, Professor, *Emeritus,* Ph.D., University of California, 1936.
Plochmann, George Kimball, Professor, Ph.D., University of Chicago, 1950.
Schedler, George, Associate Professor, Ph.D., University of California at San Diego, 1973.
Schilpp, Paul A., Professor, *Emeritus,* Ph.D., Stanford University, 1936.
Tenney, Charles, University Professor, *Emeritus,* Ph.D., University of Oregon, 1931.
Tuana, Nancy A., Assistant Professor, University of California at Santa Barbara, 1979.
Tyman, Stephen, Assistant Professor, University of Toronto, 1980.

Physical Education (College of Education)

Ackerman, Kenneth, Assistant Professor, M.A., Michigan State University, 1959.
Baker, John A.W., Assistant Professor, Ph.D., University of Iowa, 1980.

Blackman, Claudia J., Instructor, M.S.Ed., Southern Illinois University, 1968.
Brechtelsbauer, Kay M., Instructor, Ph.D., Southern Illinois University, 1980.
Carroll, Peter, Assistant Professor, Ph.D., Pennsylvania State University, 1970.
Davies, Dorothy R., Professor, *Emerita,* Ed.D., University of Cincinnati, 1944.
Dirks, W. Edward, Instructor, M.S., Southern Illinois University, 1964, Certificate, Physical Therapy, Ohio State University, 1965.
Franklin, C. C., Associate Professor, M.S.Ed., Indiana University, 1946.
Franklin, Marcile, Instructor, M.S.Ed., Indiana University, 1944.
Gallagher, Jere, Assistant Professor, Ph.D., Louisiana State University, 1980.
Good, Larry, Associate Professor, Ph.D., Temple University, 1968.
Hartzog, Lewis, Instructor, M.E., Colorado State University, 1954.
Idoine, Sallie, Assistant Professor, M.M., Florida State University, 1972.
Illner, Julee Ann, Instructor, M.S.Ed., Southern Illinois University, 1968.
Knowlton, Ronald, Professor, Ph.D., University of Illinois, 1961.
Kostalik, Linda, Instructor, M.F.A., University of California at Irvine, 1973.
Long, Linn, Instructor, M.S., University of Colorado, 1967.
Meade, William, Assistant Professor, M.A.Ed., University of North Carolina, 1950.
Okita, Ted, Associate Professor, M.A., Northwestern University, 1964.
Potter, Marjorie Bond, Professor, *Emerita,* Ph.D., University of Southern California, 1958.
Shea, Edward, Professor and *Chairperson,* Ph.D., New York University, 1955.
Spackman, Robert, Associate Professor, M.S.Ed., Southern Illinois University, 1960.
Stotlar, John, Associate Professor, *Emeritus,* D.P.Ed., Indiana University, 1954.
Thirer, Joel, Assistant Professor, Ph.D., Florida State University, 1976.
Thorpe, Jo Anne Lee, Professor, Ph.D., Texas Woman's University, 1964.
Ulrich, Dale A., Assistant Professor, Ph.D., Michigan State University, 1980.
West, Charlotte, Professor, Ph.D., University of Wisconsin, 1969.
Wilkinson, James, Associate Professor, D.P.Ed., Indiana University, 1958.
Zimmerman, Helen, Professor, *Emerita,* Ph.D., University of Wisconsin, 1951.

Physics and Astronomy (College of Science)

Arvin, Martin J., Professor, *Emeritus,* Ph.D., University of Illinois, 1934.
Borst, Walter L., Professor, Ph.D., University of California, Berkeley, 1968.
Bose, Subir K., Professor, Ph.D., University of Allahabad, India, 1967.
Brasefield,, Charles J., Professor, *Emeritus,* Ph.D., Princeton University, 1927.
Cutnell, John D., Associate Professor, Ph.D., University of Wisconsin, 1967.
Gruber, Bruno J., Professor, Ph.D., University of Vienna, Austria, 1962.
Henneberger, Walter C., Professor, Ph.D., Göttingen University, Germany, 1959.
Johnson, Kenneth W., Associate Professor, Ph.D., Ohio State University, 1967.
Malik, F. Bary, Professor and *Chairperson,* Ph.D., Goettingen University, West Germany, 1958.
Nickell, William E., Professor, Ph.D., University of Iowa, 1954.
Sanders, Frank C., Jr., Associate Professor, Ph.D., University of Texas, 1968.
Saporoschenko, Mykola, Associate Professor, Ph.D., Washington University, 1958.
Telschow, Kenneth L., Assistant Professor, Ph.D., University of California, Los Angeles, 1973.
Watson, Richard E., Professor, Ph.D., University of Illinois, 1938.
Young, Otis B., Professor, *Emeritus,* Ph.D., University of Illinois, 1928.
Zimmerschied, Charlotte, Assistant Professor, *Emerita,* A.M., University of Minnesota, 1923.
Zitter, Robert N., Professor, Ph.D., University of Chicago, 1962.

Physiology (College of Science)

Bone, Leon, Assistant Professor, Ph.D., University of Arkansas, 1976.
Doorenbos, Norman, Professor, Ph.D., University of Michigan, 1954.
Dunagan, Tommy T., Professor, Ph.D., Purdue University, 1960.
Foote, Florence M., Professor, *Emerita,* Ph.D., University of Iowa, 1940.
Freund, Matthew, Professor, Ph.D., Rutgers University, 1958.
Gass, George H., Professor, Ph.D., Ohio State University, 1955.
Kaplan, Harold M., Professor, *Emeritus,* Ph.D., Harvard University, 1933.
Miller, Donald M., Professor, Ph.D., University of Illinois, 1965.
Miller, Ginger, Assistant Professor, Ph.D., Baylor University, 1976.
Richardson, Alfred W., Professor, Ph.D., University of Iowa, 1949.
Russell, Lonnie, Associate Professor, Ph.D., University of Nebraska, 1974.

Voss, William R., Associate Professor, D.V.M., Michigan State University, 1957, M.P.H., University of Michigan, 1966.
Winet, Howard, Associate Professor, Ph.D., University of California, 1969.

Plant and Soil Science (School of Agriculture)

Caster, Alfred B., Professor, *Emeritus,* Ph.D., University of Arizona, 1941.
Coorts, Gerald D., Professor and *Chairperson,* Ph.D., University of Illinois, 1964.
Elkins, Donald M., Professor, Ph.D., Auburn University, 1967.
Hillyer, Irvin G., Professor, Ph.D., Michigan State University, 1956.
Jones, Joe H., Associate Professor, Ph.D., Ohio State University, 1960.
Kapusta, George, Associate Professor, Ph.D., Southern Illinois University, 1975.
Klubek, Brian P., Assistant Professor, Ph.D., Utah State University, 1977.
Leasure, J. K., Professor, Ph.D., University of Illinois, 1953.
Maleike, Raymond R., Assistant Professor, Ph.D., Virginia Polytechnic Institute, 1974.
Mowry, James B., Professor, Ph.D., Rutgers University, 1951.
Myers, Oval, Jr., Professor, Ph.D., Cornell University, 1963.
Olsen, Farrel J., Professor, Ph.D., Rutgers University, 1961.
Portz, Herbert L., Professor, Ph.D., University of Illinois, 1954.
Stucky, Donald J., Associate Professor, Ph.D., Purdue University, 1963.
Tweedy, James A., Professor, Ph.D., Michigan State University, 1966.
Varsa, Edward C., Assistant Professor, Ph.D., Michigan State University, 1970.

Political Science (College of Liberal Arts)

Alexander, Orville, Professor, *Emeritus,* Ph.D., University of Iowa, 1936.
Baker, John H., Associate Professor and *Chairperson,* Ph.D., Princeton University, 1961.
Bhattacharyya, Jnanabrota, Associate Professor, Ph.D., University of Delhi, 1969.
Bianchi, Rino, Instructor, *Emeritus,* M.A., Southern Illinois University, 1961.
Chou, Ikua, Professor, Ph.D., Fletcher School of Law and Diplomacy, 1949.
Dale, Richard, Associate Professor, Ph.D., Princeton University, 1962.
Derge, David Richard, Professor, Ph.D., Northwestern Unversity, 1955.
Desai, Uday, Assistant Professor, Ph.D., University of Pittsburgh, 1973.
Ervin, Osbin L., Assistant Professor, Ph.D., University of Tennessee, 1974.
Foster, John L., Associate Professor, Ph.D., University of Minnesota, 1971.
Garner, William R., Associate Professor, Ph.D., Tulane University, 1963.
Hanson, Earl Thomas, Professor, *Emeritus,* Ph.D., University of Illinois, 1948.
Hardenbergh, William, Professor, Ph.D., University of Illinois, 1954.
Jackson, John S., III, Professor, Ph.D., Vanderbilt University, 1971.
Jacobini, Horace B., Professor, Ph.D., University of Kansas, 1951.
Jones, Judson H., Assistant Professor, Ph.D., University of Oregon, 1976.
Kamarasy, Egon K., Assistant Professor, Doctor Politics, Budapest University, Hungary, 1942.
Klingberg, Frank L., Professor, *Emeritus,* Ph.D., University of Chicago, 1938.
Landecker, Manfred, Associate Professor, Ph.D., Johns Hopkins University, 1965.
Mace, George R., Associate Professor, Ph.D., Claremont Graduate School, 1963.
Mason, Ronald M., Assistant Professor, Ph.D., University of Iowa, 1976.
McGrath, Robert A., Professor, *Emeritus,* Ph.D., University of Iowa, 1947.
Melone, Albert, Associate Professor, Ph.D., University of Iowa, 1972.
Miller, Roy E., Associate Professor, Ph.D., University of Illinois, 1971.
Morton, Ward M., Professor, *Emeritus,* Ph.D., University of Texas, 1941.
Nelson, Randall H., Professor, Ph.D., University of Michigan, 1956.
Paine, Joann P., Associate Professor, Ph.D., University of Oregon, 1967.
Ridgeway, Marian E., Professor, *Emerita,* Ph.D., University of Illinois, 1952.
Roper, Robert, Assistant Professor, Ph.D., University of Kentucky, 1978.
Seroka, James H., Assistant Professor, Ph.D., Michigan State University, 1976.
Stauber, Leland G., Associate Professor, Ph.D., Harvard University, 1964.
Turley, William S., Associate Professor, Ph.D., University of Washington, 1972.

Psychology (College of Liberal Arts)

Baez, Luis A., Associate Professor, Ph.D., Princeton University, 1973.
Bekker, L. DeMoyne, Associate Professor, Ph.D., Ohio State University, 1968.

Bliss, David K., Associate Professor, Ph.D., University of California at Berkeley, 1968.
Brutten, Gene J., Professor, Ph.D., University of Illinois, 1957.
Buck, Terence D., Associate Professor, Ph.D., University of Missouri, 1968.
Carrier, Neil A., Professor, Ph.D., University of Michigan, 1956.
Dollinger, Stephen J., Assistant Professor, Ph.D., University of Missouri-Columbia, 1977.
Dunagan, Shirley S., Instructor, M.S., University of Tennessee, 1954.
Ehrenfreund, David, Professor, Ph.D., State University of Iowa, 1947.
Gannon, Linda, Assistant Professor, Ph.D., University of Wisconsin, 1975.
Graham, Jack W., Professor, Ph.D., Purdue University, 1951.
Harren, Vincent A., Professor, Ph.D., University of Texas, 1964.
Haynes, Stephen N., Professor, Ph.D., University of Colorado, 1971.
Helms, Janet, Assistant Professor, Ph.D., Iowa State University, 1975.
Kelley, Noble H., Professor, *Emeritus,* Ph.D., State University of Iowa, 1936.
Lit, Alfred, Professor, Ph.D., Columbia University, 1948.
McCarthy, Patricia R., Assistant Professor, Ph.D., Ohio State University, 1978.
McHose, James H., Professor and *Chairperson,* Ph.D., University of Iowa, 1961.
McKillip, John A., Associate Professor, Ph.D., Loyola University of Chicago, 1974.
Meltzer, Donald, Professor, Ph.D., University of Pittsburgh, 1963.
Miller, H. Richard, Associate Professor, Ph.D., University of Missouri, 1967.
Mitchell, Thomas O., Associate Professor, Ph.D., University of Colorado, 1969.
Molfese, Dennis L., Professor, Ph.D., Pennsylvania State University, 1972.
Molfese, Victoria J., Associate Professor, Ph.D., Pennsylvania State University, 1974.
O'Donnell, James P., Associate Professor, Ph.D., University of Pittsburgh, 1965.
Pitz, Gordon F., Professor, Ph.D., Carnegie-Mellon University, 1963.
Purcell, Thomas D., Associate Professor, Ph.D., Southern Illinois University, 1965.
Radtke, Robert C., Associate Professor, Ph.D., State University of Iowa, 1963.
Rafferty, Janet E., Professor, Ph.D., Ohio State University, 1952.
Randers, Susan Bahn, Assistant Professor, Ph.D., University of Maryland, 1976.
Ramanaiah, Nerella, Associate Professor, Ph.D., University of Oregon, 1971.
Ringuette, Eugene L., Associate Professor, Ph.D., Purdue University, 1963.
Schill, Thomas R., Professor, Ph.D., Oklahoma State University, 1963.
Schmeck, Ronald R., Associate Professor, Ph.D., Ohio University, 1969.
Shoemaker, Donald J., Professor, Ph.D., Ohio State University, 1955.
Smith, Douglas C., Assistant Professor, Ph.D., Kansas State University, 1977.
Snyder, John F., Associate Professor, Ph.D., Loyola University, 1965.
Tinsley, Diane J., Assistant Professor, Ph.D., University of Minnesota, 1972.
Tinsley, Howard E. A., Associate Professor, Ph.D., University of Minnesota, 1971.
Vaux, Alan C., Assistant Professor, Ph.D., Trinity College, Ireland, 1978; Ph.D., University of California at Irvine, 1980.
Westberg, William C., Professor, *Emeritus,* Ph.D., Pennsylvania State University, 1948.
Wendt, Rachel, Assistant Professor, *Emerita,* Ph.D., Southern Illinois University, 1966.
Yanico, Barbara, Assistant Professor, Ph.D., Ohio State University, 1977.

Radio-Television (College of Communications and Fine Arts)

Brown, William Edward, Assistant Professor, M.S., Southern Illinois University, 1974.
Criswell, William, Adviser, B.S.J., West Virginia University, 1950.
Dybvig, Homer E., Associate Professor, Ph.D., Southern Illinois University, 1970.
Garry, Kenneth, Lecturer, M.S., Indiana State University, 1966.
Hartnett, Robert J., Jr., Adjunct Instructor, M.S., Brooklyn College, City University of New York, 1979.
Hildreth, Richard, Assistant Professor, M.S., Syracuse University, 1968.
Holmes, John, Academic Adviser, M.A., Southern Illinois University, 1970.
Kurtz, John L., Assistant Professor, Ph.D., Southern Illinois University, 1973.
Lin, Nien-Sheng, Assistant Professor, Ph.D., University of Wisconsin at Madison, 1978.
Richardson, Alan, Assistant Professor, Ph.D., Ohio University, 1977.
Shipley, Charles W., Professor, Ph.D., Florida State University, 1971.
Sitaram, K. S., Professor, Ph.D., University of Oregon, 1969.
Walker, Myers, Instructor, M.F.A., Southern Illinois University, 1971.

Recreation (College of Education)

Abernathy, William, Assistant Professor, M.S.Ed., Southern Illinois University, 1963.
Allen, John R., Assistant Professor, Ph.D., Southern Illinois University, 1977.
Cleary, Leonard E., Assistant Professor, Ph.D., University of Illinois, 1978.

Freeberg, William, Professor, *Emeritus,* D.Rec., Indiana University, 1950.
Kinney, Walter, Assistant Professor, Ph.D., New York University, 1976.
Loveland, N. Jean, Assistant Professor, D.Rec., Indiana University, 1975.
McEwen, Douglas, Associate Professor, Ph.D., Michigan State University, 1973.
O'Brien, William, Professor and *Chairperson,* D.Rec., Indiana University, 1967.
Smith, Owen, Assistant Professor, Ph.D., University of Utah, 1974.
Teaff, Joseph, Associate Professor, Ed.D., Columbia University, 1973.

Rehabilitation Institute (College of Human Resources)

Allen, Harry A., Associate Professor, Ed.D., University of Arkansas, 1971.
Azrin, Nathan H., Professor, Ph.D., Harvard University, 1956.
Baker, Richard J., Associate Professor, Ed.D., Auburn University, 1972.
Bender, Eleanor, Assistant Professor, *Emerita,* M.S., Southern Illinois University, 1962.
Bryson, Seymour L., Associate Professor, Ph.D., Southern Illinois University, 1972.
Clark, W. Dave, Visiting Assistant Professor, Ph.D., Florida State University, 1978.
Colvin, Robert H., Assistant Professor, Ph.D., Southern Illinois University, 1971.
Cuvo, Anthony J., Associate Professor, Ph.D., University of Connecticut, 1973.
Dickey, Thomas W., Assistant Professor, *Emeritus,* M.A., Southern Illinois University, 1964.
Esposito, Andrew R., Professor, M.D., Loyola University at Chicago, 1933.
Gardner, Margaret S., Associate Professor, Ph.D., Northwestern University, 1960.
Greene, Brandon F., Assistant Professor, Ph.D., Florida State University, 1979.
Grenfell, John E., Professor, Ed.D., Oregon State University, 1966.
Hafer, Marilyn, Associate Professor, Ph.D., Texas Tech University, 1971.
Hawley, Irene B., Assistant Professor, Ph.D., Southern Illinois University, 1973.
Kohring, Curtis H., Adjunct Instructor, M.Ed., St. Louis University, 1966.
Lee, Robert E., Associate Professor, *Emeritus,* Ph.D., University of Minnesota, 1964.
Lorenz, Jerome R., Associate Professor and *Director,* Ph.D., University of Wisconsin, 1973.
Lutzker, John R., Associate Professor, Ph.D., University of Kansas, 1973.
Maki, Dennis R., Assistant Professor, Ph.D., University of Wisconsin-Madison, 1979.
Miranti, Joseph P., Professor, M.D., Loyola Universty of Chicago, 1950.
Peterson, James S., Assistant Professor, Ph.D., Southern Illinois University, 1976.
Poppen, Roger L., Associate Professor, Ph.D., Stanford University, 1968.
Renzaglia, Guy A., Professor, *Emeritus,* Ph.D., University of Minnesota, 1952.
Riggar, Theodore F., Assistant Professor, Ed.D., University of Northern Colorado, 1977.
Rubin, Harris B., Professor, Ph.D., University of Chicago, 1965.
Sawyer, Horace W., Associate Professor, Ed.D., Auburn University, 1973.
Schumacher, Brockman, Professor, Ph.D., Washington University, 1969.
Steinhauser, Larry, Adjunct Instructor, M.S., Southern Illinois University, 1977.
Vieceli, Louis, Associate Professor, M.S.Ed., Southern Illinois University, 1959.
Williams, C. Michael, Adjunct Instructor, M.S., Southern Illinois University.

Religious Studies (College of Liberal Arts)

Bengtson, Dale R., Assistant Professor, Ph.D., Hartford Seminary Foundation, 1971.
Hayward, John F., Professor and *Chairperson,* Ph.D., University of Chicago, 1949.
Morey-Gaines, Ann-Janine, Assistant Professor, Ph.D., University of Southern California, 1979.

Social and Community Services (College of Human Resources)

Alliband, Terry T., Assistant Professor, Ph.D., University of Iowa, 1974.
Auerbach, Arnold J., Professor, *Emeritus,* Ph.D., University of Pittsburgh, 1961.
Bhattacharyya, Jnanabrota, Associate Professor, Ph.D., University of Delhi, India, 1969.
Boland, Ronald T., Instructor, M.S.W., Michigan State University, 1967.
Brelje, Martha Brose, Assistant Professor, M.S.W., Indiana University, 1963.
Brown, Foster S., Jr., Assistant Professor, Ph.D., Southern Illinois University, 1978.
Denise, Paul S., Assistant Professor, Ph.D., University of California at Berkeley, 1974.
Ehrlich, Ira F., Professor, D.S.W., Washington University, 1970.
McDermott, Carol, Instructor, M.S.S.S., Boston University, 1951.
O'Neill, Treva H., Visiting Instructor, M.S.W., University of Denver, 1967.

Poston, Richard, Professor, *Emeritus,* B.A., University of Montana, 1940.
Rosen, Anita L., Assistant Professor, Ph.D., Southern Illinois University, 1975.
Rouzan, Brisbane P., Instructor, M.A., Atlanta University, 1972.
Smith, Margot W., Assistant Professor, D.P.H., University of California at Berkeley, 1977.
Thomas, Richard M., Professor, D.Ed., University of California at Los Angeles, 1964.
Schloss, Patrick, Visiting Assistant Professor, Ph.D., University of Wisconsin, 1979.
Warshawsky, Robert, Assistant Professor, Ph.D., Tulane University, 1978.

Sociology (College of Liberal Arts)

Alix, Ernest K., Associate Professor, Ph.D., Southern Illinois University, 1966.
Brooks, Melvin, Associate Professor, Ph.D., University of Wisconsin, 1941.
Burger, Thomas, Associate Professor, Ph.D., Duke University, 1972.
Eynon, Thomas G., Professor, Ph.D., Ohio State University, 1959.
Gaston, Jerry C., Professor and *Chairperson,* Ph.D., Yale University, 1969.
Greenstein, Theordore N., Assistant Professor, Ph.D., Washington State University, 1976.
Hawkes, Roland K., Associate Professor, Ph.D., Johns Hopkins University, 1967.
Hendrix, Lewellyn, Associate Professor, Ph.D., Princeton University, 1974.
Johnson, Elmer H., Professor, Ph.D., University of Wisconsin, 1950.
Lantz, Herman R., Professor, Ph.D., Ohio State University, 1950.
Lemert, Charles, Associate Professor, Ph.D., Harvard University, 1972.
Marcum, John P., Assistant Professor, Ph.D., University of Texas, 1976.
McKeefery-Reynolds, Virginia, Assistant Professor, Ph.D., University of Kansas, 1978.
Meddin, Jay R., Assistant Professor, Ph.D., University of Kentucky, 1973.
Munch, Peter A., Professor, *Emeritus,* Ph.D., University of Oslo, 1946.
Nall, Frank C., II, Associate Professor, Ph.D., Michigan State University, 1959.
Patterson, Edgar I., Instructor, M.A., University of Kansas, 1961.
Paul, Patricia Searles, Assistant Professor, Ph.D., University of Michigan, 1978.
Shelby, Lon R., Professor, Ph.D., University of North Carolina, 1962.
Snyder, Charles R., Professor, Ph.D., Yale University, 1954.

Special Education (College of Education)

Cordoni, Barbara, Assistant Professor, Ed.D., Duke University, 1976.
Casey, John P., Professor, Ed.D., Indiana University, 1973.
Crowner, James, Professor, Ph.D., Michigan State University, 1960.
Ewing, Norma J., Assistant Professor, Ph.D., Southern Illinois University, 1974.
Hisama, Toshiaki, Associate Professor, Ph.D., University of Oregon, 1971.
Joiner, Lee M., Professor, Ph.D., Michigan State University, 1966.
Juul, Kristen D., Professor, Ed.D., Wayne State University, 1953.
McKay, Elizabeth B., Associate Professor, *Emerita,* Ph.D., Syracuse University, 1952.
Miller, Sidney R., Visiting Associate Professor, Ph.D., Pennsylvania State University, 1974
Morgan, Howard, Professor, Ed.D., Wayne State University, 1962.
Rainey, Dan, Assistant Professor, M.S.Ed., Southern Illinois University, 1956.
Sabatino, David H., Professor and *Chairperson,* Ph.D., Ohio State University, 1966.
Schloss, Patrick, Visiting Assistant Professor, Ph.D., University of Wisconsin, 1979.
Schmidt, Carl R., Visiting Instructor, M.S., Pennsylvania State University, 1973.
Sedlak, Robert A., Associate Professor, Ph.D., Pennsylvania State University, 1973.
Silverstein, Burton, Researcher, M.S.Ed., Southern Illinois University, 1977.
Stoneburner, Robert L., Assistant Professor, Ph.D., University of Illinois, 1974.
Teska, James, Associate Professor, Ph.D., University of Illinois, 1969.

Speech Communication (College of Communications and Fine Arts)

Blake, Cecil, Assistant Professor, Ph.D., University of Wisconsin-Madison, 1976.
Breniman, Lester R., Associate Professor, *Emeritus,* Ph.D., Ohio State University, 1953.
Bytwerk, Randall L., Associate Professor, Ph.D., Northwestern University, 1975.
Deetz, Stanley A., Associate Professor, Ph.D., Ohio University, 1973.
Fish, Robert A., Assistant Professor, Ph.D., University of Oklahoma, 1970.
Goodiel, Eunice B., Assistant Professor, *Emerita,* M.A., Northwestern University, 1941.
Hibbs, R. P., Professor, *Emeritus,* A.M., University of Wisconsin, 1942.
Holdridge, William E., Assistant Professor, Ph.D., University of Illinois, 1974.
Kleinau, Marion L., Professor, Ph.D., University of Wisconsin, 1961.

Kleinau, Marvin D., Associate Professor, Ph.D., Southern Illinois University, 1977.
Lanigan, Richard L., Professor, Ph.D., Southern Illinois University, 1969.
MacDonald, Donald, Associate Professor, Ph.D., Michigan State University, 1971.
McCauliff, Mary Lou, Assistant Professor, Ph.D., University of Kansas, 1974.
Micken, Ralph A., Professor, *Emeritus,* Ph.D., Northwestern University, 1948.
Pace, Thomas J., Professor, Ph.D., University of Denver, 1957.
Parkinson, Michael G., Assistant Professor, Ph.D., University of Oklahoma, 1978.
Potter, David J., Professor, *Emeritus,* Ph.D., Columbia University, 1943.
Sanders, Keith R., Professor, Ph.D., University of Pittsburgh, 1968.
Smith, William D., Associate Professor, Ph.D., Southern Illinois University, 1964.
Talley, C. Horton, Professor, *Emeritus,* Ph.D., State University of Iowa, 1936.
Wiley, Raymond D., Assistant Professor, *Emeritus,* M.S., Southern Illinois University, 1965.

Speech Pathology and Audiology (College of Communications and Fine Arts)

Anderson, John O., Professor, Ph.D., Ohio State University, 1950.
Blache, Stephen E., Associate Professor and *Acting Chairperson,* Ph.D., Ohio University, 1970.
Brackett, Isaac P., Professor, Ph.D., Northwestern University, 1947.
Brutten, Gene J., Professor, Ph.D., University of Illinois, 1957.
Hoshiko, Michael S., Professor, Ph.D., Purdue University, 1957.
Moncur, John P., Professor, Ph.D., Stanford University, 1950.
Nelson, Linda, Instructor, M.S., Southern Illinois University, 1971.
Prizant, Barry, Assistant Professor, Ph.D., State University of New York at Buffalo, 1978.

Technical Careers (School of Technical Careers)

Adams, Deborah K., Field Representative, B.S., Southern Illinois University, 1977.
Alden, Elaine F., Visiting Associate Professor, Ph.D., University of Pittsburgh, 1971.
Brown, Kevin, Visiting Instructor, M.B.A., Southern Illinois University at Edwardsville, 1977.
Dallman, Murnice, Associate Professor, M.S., Southern Illinois University, 1959.
Davis, Harry E., Visiting Assistant Professor, M.H.A., Washington University Medical School, 1961.
Falkenberry, William A., Academic Adviser, B.A., Southern Illinois University, 1976.
Gutos, Stevan, Visiting Assistant Professor, M.P.A., Sangamon State University, 1973.
Harrison, Fred E., Visiting Assistant Professor, Ed.D., University of Denver, 1975.
Hertz, Vivienne, Assistant Professor, Communications, M.A., Southern Illinois University, 1972.
Icenogle, Dale F., Assistant Professor, M.S., Southern Illinois University, 1973.
Johnston, Chester E., Associate Professor, M.A., George Peabody College for Teachers, 1953.
Laedtke, Ralph, Visiting Assistant Professor, M.A., Webster College, 1977.
Layer, Robert G., Professor, Ph.D., Harvard University, 1952.
Manning, Michael, Visiting Assistant Professor, M.B.A., California State University at Hayward, 1975.
McDougle, Larry G., Associate Professor, Ph.D., University of Toledo, 1971.
Meadors, Allen, Visiting Assistant Professor, M.P.A., University of Kansas, 1975.
New, James, Visiting Assistant Professor, M.S., University of Arkansas, 1976.
NewMyer, David, Visiting Assistant Professor, M.S., Northwestern University, 1974.
Nichols, Paul, Visiting Assistant Professor,, M.L.S., Colleges of Arts and Sciences at Plattsburgh, New York, 1978.
Novick, Jehiel, Assistant Professor, Ph.D., Southern Illinois University, 1970.
Pratt, Arden L., Professor, Ed.D., State University of New York at Buffalo, 1968.
Quintenz, Constance, Academic Adviser, B.S., Southern Illinois University, 1975.
Robb, James A., Associate Professor, Ph.D., Southern Illinois University, 1974.
Skelton, John, Visiting Assistant Professor, M.A., Georgetown University, 1974.
Soderstrom, Ruth, Academic Adviser, M.S., New York University, 1939.
Sutton, John R., Assistant Professor, Ph.D., Southern Illinois University, 1977.
Tregoning, Ruby, Academic Adviser, M.S., Southern Illinois University, 1976.
Vitello, Elaine, Visiting Assistant Professor, Ph.D., Southern Illinois University, 1977.
Walsh, E. Michael, Assistant Professor, Ph.D., Southern Illinois University, 1974.

Technology (College of Engineering and Technology)

Anderson, Melvin K., Associate Professor, Ph.D., University of Arkansas, 1967.
Andrews, Paul E., Assistant Professor, Ph.D., Southern Illinois University, 1980.
Barbay, Joseph E., Jr., Associate Professor, Ph.D., University of Missouri, Columbia, 1971.
Bell, Rodney A., Visiting Assistant Professor, M.S., Illinois State University, 1976.
Besterfield, Dale H., Professor, Ph.D., Southern Illinois University, 1971.
Brown, John J., Visiting Assistant Professor, M.S. in Ed., Southern Illinois University, 1975.
Chen, Han Lin, Instructor, M.A., Southern Illinois University, 1958.
Cowley, Wayne D., Visiting Assistant Professor, D.Ed., Texas A & M University, 1975.
Cross, Bud D., Visiting Assistant Professor, M.S., Southern Illinois University, 1965.
Cutrell, Charles R., Visiting Assistant Professor, M.B.A., University of Missouri, 1972.
Denton, Keith, Visiting Assistant Professor, M.P.A., Memphis State University, 1974.
Doty, Leonard A., Visiting Assistant Professor, M.B.A., University of Chicago, 1970.
Dunning, E. Leon, Professor and *Chairperson,* Ph.D., University of Houston, 1967.
Ferketich, Robert R., Instructor, M.S., Southern Illinois University, 1962.
Ferrell, Stuart, Associate Professor, Ph.D., University of Missouri, Rolla, 1971.
Fillman, Harry W., Visiting Associate Professor, M.S., Columbia University, 1964.
Hankla, Maxine D., Assistant Instructor, B.S., Southern Illinois University, 1978.
Hart, Willard C., Instructor, *Emeritus,* B.S., University of Illinois, 1939.
Heidinger, George H., Assistant Professor, M.S., Southern Illinois University, 1979.
Horwitz, Norman G., Visiting Assistant Professor, M.S. Polytechnic Institute of Brooklyn, 1972.
Jakubowski, Tadeus L., Visiting Assistant Professor, M.A., University of Maryland, 1968.
Johnson, Marvin E., Professor, Ed.D., University of Missouri, Columbia, 1959.
Jones, Robert L., Visiting Assistant Professor, M.S., University of Arkansas, 1978.
Kheniser, Issam E., Assistant Instructor, B.S., Southern Illinois University, 1976.
King, Frank H., Visiting Assistant Professor, M.S.I.E., Oklahoma State University, 1975.
Klopp, Mark E., Associate Professor, M.S.Ed., Pennsylvania State University, 1954.
Lindsey, Jefferson F., Jr., Professor, D. Engr., Lamar University, 1980.
McLuckie, John D., Visiting Assistant Professor, Ph.D., Southern Illinois University, 1976.
Meyers, Fred E., Visiting Assistant Professor, M.B.A., Capitol University, 1975.
Moeller, C. Merrill, Associate Professor, M.S.C.E., Kansas State University, 1951.
Mueller, William E., Visiting Assistant Professor, M.B.A., Eastern Michigan University, 1972.
Nolen, Don H., Visiting Assistant Professor, M.S., University of Wisconsin, 1974.
O'Hagan, Robert E., Visiting Assistant Professor, M.S., Wisconsin State University, 1974.
Orr, James P., Visiting Assistant Professor, M.A., University of Oklahoma, 1972.
Ott, Carlyle G., Assistant Professor, M.S.Ed., Southern Illinois University, 1951.
Rogers, C. Lee., Associate Professor, Ph.D., Southern Illinois University, 1975.
Williamson, Jerry L., Assistant Professor, M.S.M.E., Rensselear Polytechnic Institute, 1964.

Theater (College of Communications and Fine Arts)

McLeod, Archibald, Professor, *Emeritus,* Ph.D., Cornell University, 1943.
Moe, Christian H., Professor, Ph.D., Cornell University, 1958.
Payne, Darwin R., Professor and *Chairperson,* M.F.A., Southern Illinois University, 1955.
Plotnicki, Rita, Assistant Professor, Ph.D., City University of New York, 1979.
Proctor, Joseph M., Assistant Professor, M.F.A., Brandeis University, 1971.
Reynolds, Howard, Assistant Professor, M.F.A., Smith College, 1969.
Stewart-Harrison, Eelin, Professor, Ph.D., Louisiana State University, 1968.
Straumanis, Alfreds, Professor, Ph.D., Carnegie-Mellon University, 1966.
Taylor, Merideth, Lecturer, B.A., Evergreen State College, 1976.

Thermal and Environmental Engineering (College of Engineering and Technology)

Chen, Juh W., Professor and *Chairperson,* Ph.D., University of Illinois, 1959.

Cook, Echol E., Professor, Ph.D., Oklahoma State University, 1970.
Helmer, Wayne Allen, Associate Professor, Purdue University, 1974.
Hesketh, Howard E., Professor, Ph.D., Pennsylvania State University, 1968.
Jefferson, Thomas B., Professor, Ph.D., Purdue University, 1955.
Kent, Albert C., Associate Professor, Ph.D., Kansas State University, 1968.
Kos, Peter, Associate Professor, Ph.D., University of Massachusetts, 1975.
Muchmore, Charles B., Associate Professor, Ph.D., Southern Illinois University, 1970.
O'Brien, William S., Assistant Professor, Ph.D., West Virginia University, 1972.
Petrie, Thomas W., Associate Professor, Ph.D., University of Minnesota, 1969.
Rajan, S., Assistant Professor, Ph.D., University of Illinois, 1970.
Stoever, Herman J., Professor, *Emeritus*, University of Illinois, 1934.
Tempelmeyer, Kenneth E., Professor, Ph.D., University of Tennessee, 1969.

Vocational Education Studies (College of Education)

Anderson, Marcia, Assistant Professor, Ph.D., Southern Illinois University, 1975.
Bailey, Larry J., Professor, Ed.D., University of Illinois, 1968.
Bittle, R. E., Professor, Ed.D., University of Florida, 1956.
Bobell, John L., Visiting Assistant Professor, Ed.D., University of Missouri, 1973.
Bortz, Richard F., Associate Professor, Ph.D., University of Minnesota, 1967.
Boss, Richard D., Visiting Associate Professor, Ed.D., Oregon State University, 1968.
Brames, Thomas J., Visiting Assistant Professor, Ed.D., Utah State University, 1975.
Bubnas, Phyllis, Assistant Professor, M.S., Southern Illinois University, 1960.
Buila, Theodore, Associate Professor, Ph.D., Cornell University, 1968.
Burger, Opal June, Assistant Professor, M.S.Ed., Southern Illinois University, 1961.
Carter, Rose Mary, Assistant Professor, Ph.D., Purdue University, 1970.
Cilley, Richard N., Visiting Assistant Professor, Ed.D., Virginia Polytechnic Institute and State University, 1977.
Cunningham, William J., Visiting Assistant Professor, Ed.D., University of Tennessee, 1976.
Dewulf, Bernard G., Visiting Assistant Professor, Ph.D., Washington University (St. Louis), 1962.
Erickson, John H., Professor, Ed.D., Pennsylvania State University, 1953.
Fults, Anna Carol, Professor, Ph.D., Ohio State University, 1946.
Gooch, Bill G., Assistant Professor, Ed.D., University of Tennessee, 1973.
Harbert, Donald L., Visiting Assistant Professor, Ed.D., University of Florida, 1968.
Heisler, Arlene J., Assistant Professor, *Emerita*, M.S., Southern Illinois University, 1959.
Huck, John F., Associate Professor, Ed.D., University of Illinois, 1973.
Hulle, William, Visiting Assistant Professor, Ed.D., Wayne State University, 1972.
Jenkins, James, Professor, Ed.D., Pennsylvania State University, 1955.
Keenan, Dorothy, Professor, Ed.D., University of Illinois, 1962.
Klehm, Merwyn A., Visiting Assistant Professor, Ph.D., Ohio State University, 1974.
Legacy, James, Associate Professor, Ph.D., Cornell University, 1976.
Little, Richard L., Visiting Associate Professor, Ed.D., Arizona State University, 1968.
Luft, Roger L., Assistant Professor, Ed.D., Oregon State University, 1977.
Markle, Howard B., Visiting Assistant Professor, Ph.D., Pennsylvania State University, 1977.
Martin, Randall B., Visiting Assistant Professor, Ph.D., Pennslvania State University, 1975.
Mauch, Ernest C., Visiting Assistant Professor, Ph.D., University of Maryland, 1973.
McDonald, Bruce A., Visiting Assistant Professor, Ed.D., Auburn University, 1976.
Mecagni, Richard A., Visiting Assistant Professor, Ph.D., Colorado State University, 1975.
Mullen, Paul E., Visiting Assistant Professor, Ph.D., University of Missouri, 1976.
Nervig, Nordale N., Visiting Assistant Professor, Ed.D., Utah State University, 1977.
Ramp, Wayne S., Professor, Ed.D., Bradley University, 1956.
Reneau, Fred, Assistant Professor, Ed.D., Virginia Polytechnic Institute and State University, 1979.
Robinson, William O., Visiting Assistant Professor, Ed.D., University of Arkansas, 1971.
Rosenbarger, Maxine, Associate Professor, Ph.D., Southern Illinois University, 1970.
Shields, Bill J., Instructor, M.S.Ed., Southern Illinois University, 1963.
Stadt, Ronald W., Professor, Ed.D., University of Illinois, 1962.
Steinbach, Gary, Visiting Assistant Professor, Ph.D., University of Minnesota, 1979.
Stitt, Thomas R., Professor, Ph.D., Ohio State University, 1967.
Sullivan, James A., Professor and *Chairperson*, Ed.D., West Virginia University, 1967.
Sutton, W. Clyde, Lecturer, M.S., Murray State University, 1973.
Thompson, Delman L., Visiting Assistant Professor, Ph.D., Texas A & M University, 1976.
Wood, Eugene S., Professor, *Emeritus*, Ed.D., University of Missouri, 1958.

Zoology (College of Science)

Anthoney, Terence R., Associate Professor, M.D., Ph.D., University of Chicago, 1968, 1975.
Beatty, Joseph A., Associate Professor, Ph.D., Harvard University, 1969.
Blackwelder, Richard E., Professor, *Emeritus,* Ph.D., Stanford University, 1934.
Brandon, Ronald A., Professor, Ph.D., University of Illinois, 1962.
Burr, Brooks M., Assistant Professor, Ph.D., University of Illinois, 1977.
Dyer, William G., Professor, Ph.D., Colorado State University, 1965.
Ellinger, Mark S., Assistant Professor, Ph.D., University of Minnesota, 1976.
Englert, DuWayne C., Professor, Ph.D., Purdue University, 1964.
Fisher, Harvey I., Professor, *Emeritus,* Ph.D., University of California at Berkeley, 1942.
Galbreath, Edwin C., Professor, Ph.D., University of Kansas, 1951.
Garoian, George, Associate Professor, Ph.D., University of Illinois, 1956.
George, William G., Professor, Ph.D., University of Arizona, 1961.
Gersbacher, Willard, Professor, *Emeritus,* Ph.D., University of Illinois, 1932.
Heidinger, Roy C., Associate Professor, Ph.D., Southern Illinois University, 1970.
Joyner, David E., Assistant Professor, Ph.D., University of Nebraska, 1975.
Klimstra, Willard D., Professor, Ph.D., Iowa State University, 1949.
King, David, Assistant Professor, Ph.D., University of California at San Diego, 1975.
LeFebvre, Eugene A., Associate Professor, Ph.D., University of Minnesota, 1962.
Lewis, William M., Professor and *Chairperson,* Ph.D., Iowa State University, 1949.
Martan, Jan, Professor, Ph.D., Unversity of Oregon, 1963.
McPherson, John E., Jr., Professor, Ph.D., Michigan State University, 1968.
Paparo, Anthony A., Associate Professor, Ph.D., Fordham University, 1969.
Petersen, Bruce W., Assistant Professor, Ph.D., University of Colorado, 1968.
Shepherd, Benjamin A., Professor, Ph.D., Kansas State University, 1970.
Stahl, John B., Associate Professor, Ph.D., Indiana University, 1958.
Stains, Howard J., Professor, Ph.D., University of Kansas, 1955.
Stein, Hilda, Associate Professor, *Emerita,* M.S., University of Illinois, 1929.
Waring, George H., Associate Professor, Ph.D., Colorado State University, 1966.
Woolf, Alan, Associate Professor, Ph.D., Cornell University, 1972.

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Objectives of Southern Illinois University

TO EXALT BEAUTY
In God,
in nature, and
in art;
Teaching how to love the best
but to keep the human touch;

TO ADVANCE LEARNING
In all lines of truth
wherever they may lead,
Showing how to think,
rather than what to think,
Assisting the powers
of the mind
In their self-development;

TO FORWARD IDEAS AND IDEALS
In our democracy,
Inspiring respect for others
as for ourselves,
Ever promoting freedom
with responsibility;

TO BECOME A CENTER OF ORDER AND LIGHT
That knowledge may lead
to understanding
And understanding
to wisdom.



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